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SYSTEMATICS

OF

DRACULA

(ORCHIDACEAE)

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Carlyle A. Luer

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JAN 25 1994

MONOGRAPHS IN SYSTEMATIC BOTANY
from the Missouri Botanical Garden
Volume 46, December 1993

ISSN 0161-1542

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Composed at 3222 Old Oak Drive, Sarasota, Florida
with WordStar 7.0
Type set with a Texas Instruments microLaser Plus

Printed in the United States of America by
Arcade Lithographing Corp., Bradenton, FL, USA

RACULA

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As the genus *Dracula* is known today, this work is as complete a treatment of the genus as possible. Tomorrow is another matter. It is a condensation in format of *Thesaurus Dracularum* including material of the final, seventh fascicle which will be published in 1994. Rarely does the opportunity arise to correct some of the errors of previous publications.

Abbreviations of publications are in accordance with *Botanico-Periodicum-Huntianum*, Pittsburgh, PA, 1968. Abbreviations of the names of authors, with few exceptions, are in accordance with *Authors of Plant Names*, Kew, 1992.

Plant of *Dracula lafleurii* Luer & Dalström growing among *Anthurium*. Los Cedros Reserve, alt. 1450 m, 27 Jan. 1993, province of Imbabura, Ecuador. Photo by Stig Dalström.

SYSTEMATICS OF THE GENUS *DRACULA* (ORCHIDACEAE)

ABSTRACT

A brief history of the genus *Dracula* Luer is given and the genus is described. A key to the subgenera, sections and species is given. Each species is described and illustrated with a black and white drawing, and a distribution map is included for each.

New taxa:
Dracula series *Dracula*, ser. nov.
Dracula series *Grandiflorae-Parvilabiatae* Luer, ser. nov.
Dracula series *Parviflorae* Luer, ser. nov.
Dracula fafnir Luer, sp. nov.
Dracula lafleurii Luer & Dalström, sp. nov.
Dracula morleyi Luer & Dalström, sp. nov.
Dracula papillosa Luer & Dodson, sp. nov.
Dracula trinympharum Luer, sp. nov.

The first species of *Dracula* to be described was *Masdevallia chimaera* by Professor Reichenbach in 1872 from a collection in the Western Cordillera of Colombia by the intrepid Bohemian traveller Benedict Roezl. A detailed account of the discovery of this fabulous species, as well as contemporary commentaries, are to be found in the first fascicle of *Thesaurus Dracularum*, published in 1988.

During his prolific life, Reichenbach described 21 species in *Masdevallia* that are attributable to *Dracula* today. Following his example, every species of *Dracula* continued to be described in *Masdevallia* until 1978 when the genus *Dracula* was proposed to accommodate them. At that time 51 transfers were made from *Masdevallia*. Reichenbach most likely decided that these species should be included in *Masdevallia* because of the short ramicauls and long sepaline tails, and because no other recognized genus existed that could accommodate them. Also, the genus *Masdevallia* was very popular horticulturally at that time.

After having described *M. vespertilio* without a designated section in early 1873 (and again in 1877), Reichenbach inaugurated the subgeneric category (section) *Saccilabiatae* when he described *M. nycterina* later in 1873. He seemed not to have had the idea well formulated when he placed *M. velutina* in the undesignated subdivision *Clausae porrectae* in 1875. Subsequently, however, he indicated the category (regarded as "section") *Saccilabiatae* for most of his new descriptions of species which would later be included in *Dracula*. Apparently without questioning, subsequent authors followed his practice of attributing new, allied species to *Masdevallia*. For unexplained reasons other than a whim, Kränzlin substituted *Chimaeroideae* for the name of the section in his monograph of the genus *Masdevallia* in 1925. Elevation of the section to the genus *Dracula* was proposed in 1978.

The 100-odd species of *Dracula* recognized today are distributed in the moist, mountain forests of the western Neotropics from southern Mexico, where one species is known (*D. pusilla*), to Peru, where also only one species is known (*D. janetiae*). None is known from Bolivia, Brazil or Venezuela, or other adjacent lands. By far the greatest concentration of species occurs on the forested slopes of northwestern Ecuador and in the Western Cordillera and the Central Cordillera of

Colombia. Approximately 40 species are known from Ecuador, and about 60, from Colombia, only eight of which are known from the Eastern Cordillera of Colombia.

The vertical distribution is mostly between 1500 and 2500 meters in altitude above sea level (about 4900 and 8200 feet respectively). Rarely, a species (*D. mopsus*) grows in scrubby but humid forest at an altitude of only 300 meters (about 1000 feet) and within sight of the sea. Very few species grow above 2500 meters above sea level.

Many of the species are extremely localized in distribution; some are rare and confined to a single valley. A few enjoy a much wider range. *Dracula vespertilio*, a morphologically stable species, is known locally from Nicaragua in Central America into the Andes of Ecuador. *Dracula chimaera* and *D. wallisii* are relatively frequent but very variable, interrelated concepts found through the western and central cordilleras of Colombia.

The plants of *Dracula* usually grow epiphytically in accumulations of rich, mossy humus in well-drained, shaded places in moist forests where the humidity remains high, and the night temperatures become chilly. The inflorescences of most species descend and emerge from the loose substrate to produce flowers some distance from the plant. Some species with erect inflorescences (e.g. *D. sodiroi*) grow well terrestrially. Most species produce flowers successively throughout the year, but some species, usually those that produce but one flower on the peduncle, produce flowers in profusion only during one time of the year.

Species of *Dracula* are easily recognizable by their vegetative parts, but almost no species of *Dracula* is readily distinguished from others vegetatively. The rhizome is usually very short creating densely caespitose plants, but sometimes the rhizome ascends or creeps to produce a shortly repent habit (e.g. *D. iricolor* or *D. lotax*). The ramicauls are shorter than the smooth, usually thinly coriaceous leaves. On the upper surface the leaves are longitudinally sulcate above a sharply keeled midrib on the back surface. The apex is minutely notched and apiculate, the apiculum being an extension of the midrib. The base is more or less gradually contracted into a conduplicate petiole (really a "pseudopetiole").

The inflorescence is produced laterally with an annulus usually low on the ramicaul. The peduncle rises or descends to bear a solitary flower, or more commonly a succession of single flowers in a slowly lengthening raceme. *Dracula sodiroi* produces an erect raceme with two or three flowers open simultaneously. Most flowers have no discernible scent. The flowers of a few species (e.g. *D. chestertonii*) emit a faint fragrance reminiscent of a mushroom.

The more or less soft and fleshy, variously colored sepals are the most prominent and usually the most diagnostic features of the flower. They are variously connate to each other to form a widely spread, flat flower, or concave and more deeply connate to form a distinct, sepaline cup. In *Dracula xenos* the sepals are essentially free. The apices of the sepals of all known species are prolonged into more or less fragile, slender, long or short tails. Most of the sepals, especially those of widely spread flowers, are very sensitive to humidity and temperature. Since the flowers wilt or collapse with slight decreases in humidity, or slight increases in temperature, cultivated plants are seldom moved into displays successfully.

Internally the sepals are usually covered by a dense or sparse pubescence consisting of long or short, simple or forked trichomes, or by minute, but sometimes coarse papillae. The sepals of some species (e.g. *D. vampira*) are essentially gla-

brous, while those of *D. chimaera* and *D. wallisii* are typically coarsely long-pubescent.

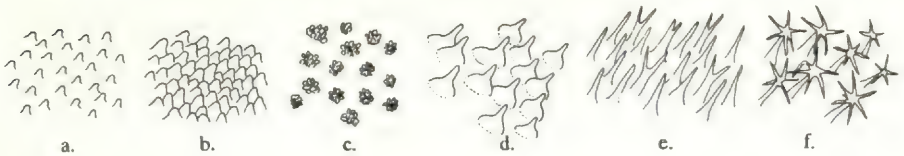

Figure 1. Various integuments of sepals.

a. *Dracula cutis-bufonis*
b. *Dracula andreettae*
c. *Dracula benedictii*
d. *Dracula anicula*
e. *Dracula velutina*
f. *Dracula mopsus*

With few exceptions, the small petals that flank the column are cartilaginous in consistency and thickened toward a bivalvate apex. The two apical valves, or laminae that split the apex, are usually separated by a thick, protruding layer of verrucose or papillose tissue.

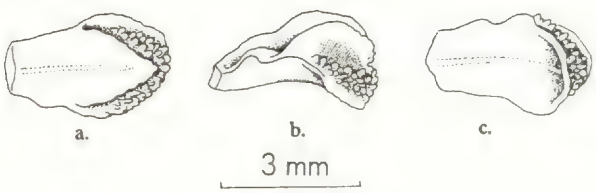

Figure 2. A typical bivalvate petal.

a. internal view
b. lateral view
c. external view

The thick, more or less spathulate or pandurate, three-nerved lip is usually prominently partitioned by a central constriction or fold into an epichile, the anterior or front segment, and a more or less oblong hypochile, the posterior or back portion of the lip. The usually larger epichile is more or less rounded, ovoid or obovoid, or sometimes transverse. In most species it is concave with a central carina, often with a lesser carina to either side, and coursed within by raised, more or less branching veins or lamellae that radiate from the base or the central carina. The epichile often resembles an inverted cap of a mushroom complete with gills. The number and configuration of the lamellae are often inconstant, even within a population of a given species. The margins of the epichile vary from flat to sloping upward, to involute.

The hypochile is more or less oblong with erect, angled margins, and deeply cleft centrally between a pair of thickly callous plates. Toward the base these plates

fuse to form a roof over a short recess which is possibly a nectary or a source of fragrances. Anteriorly the plates unite and continue forward into the epichile as the median carina. The base of the hypochile is concave and attached to the end of the column-foot. The attachment is usually a loosely hinged, membranous connection so that the lip is mobile in a dangling flower. In a few species (e.g. *D. chestertonii* and *D. chimaera*) the attachment is rigid so that the lip projects perpendicularly from the center of the flower.

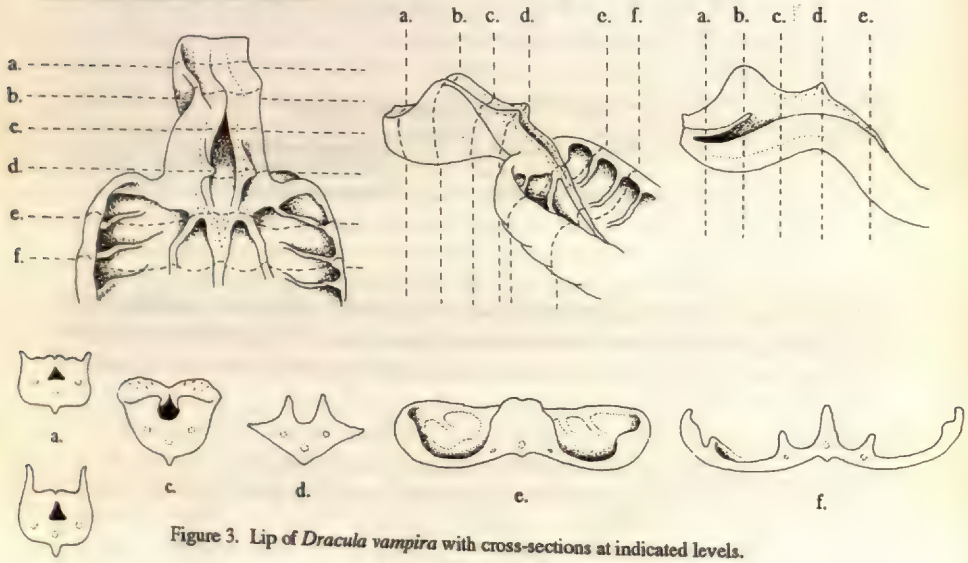

Figure 3. Lip of *Dracula vampira* with cross-sections at indicated levels.
a., b., c., d. through the hypochile
e., f. through the epichile

The column is stout and semiterete, with narrow, longitudinal, marginal wings, and with a thick column-foot at the base formed with the apex of the ovary. The apex of the column is more or less toothed and hooded over a ventral anther. The anther-cap is simple and deciduous. The anther-bed is separated from the ventral stigma by a rostellar flap. The pollen grains are coherent into a pair of firm, subhemispherical pollinia with rudimentary, granular caudicles.

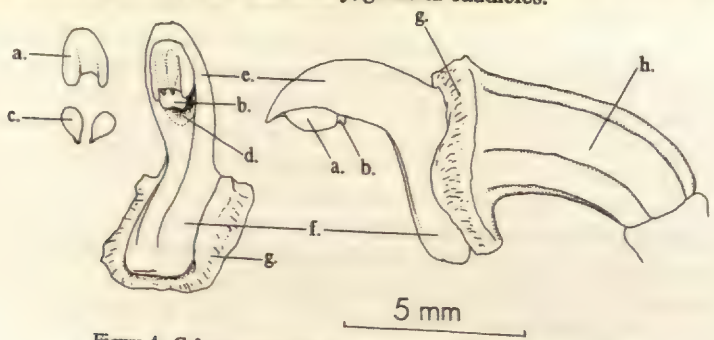

Figure 4. Column and a non-crested ovary (*Dracula verticulosa*).

a. anther cap
b. rostellar flap
c. pollinium
d. stigma
e. column
f. column-foot
g. base of sepals cut away
h. ovary

The ovary is trilocular with six "veins" in the carpels or valves. The surface is smooth to more or less verrucose, lightly grooved longitudinally, to winged or crested. The mature fruit splits longitudinally into three wide valves and three narrow, lesser valves, each with one vein.

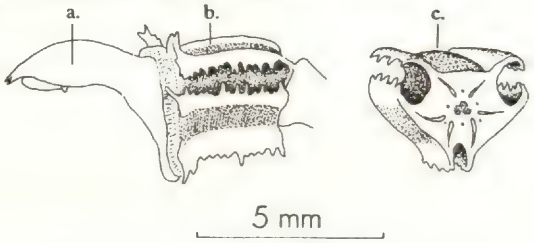

Figure 5. Column and a crested ovary (*Dracula inaequalis*).

a. column
b. ovary
c. cross-section of ovary

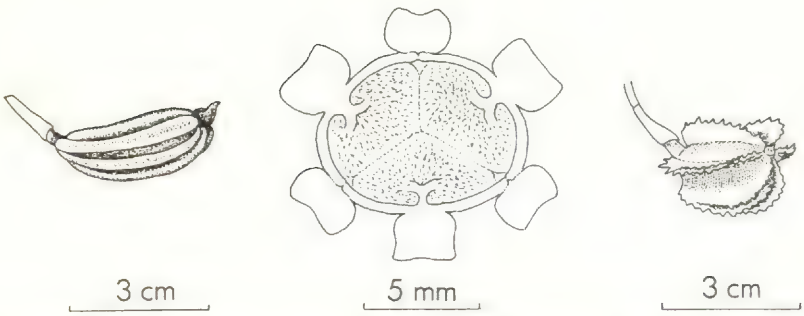

Figure 6. Capsule and cross-section of capsule of *Dracula radiosa* and capsule of *Dracula nycterina*.

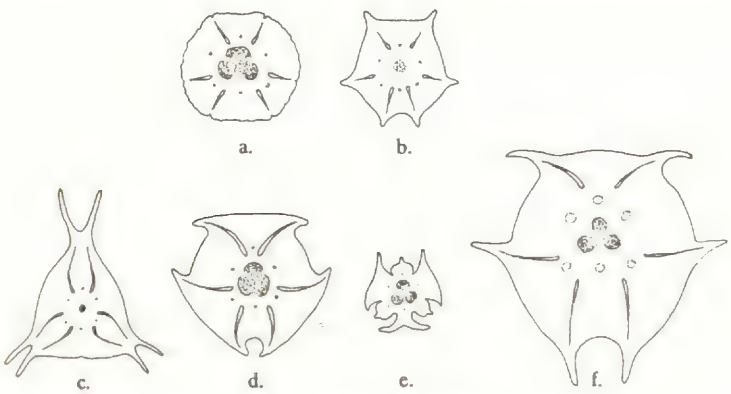

Figure 7. Cross-sections of ovaries.

a. *Dracula velutina*
b. *Dracula felix*
c. *Dracula berthae*
d. *Dracula ophioceps*
e. *Dracula cochliops*
f. *Dracula bella*

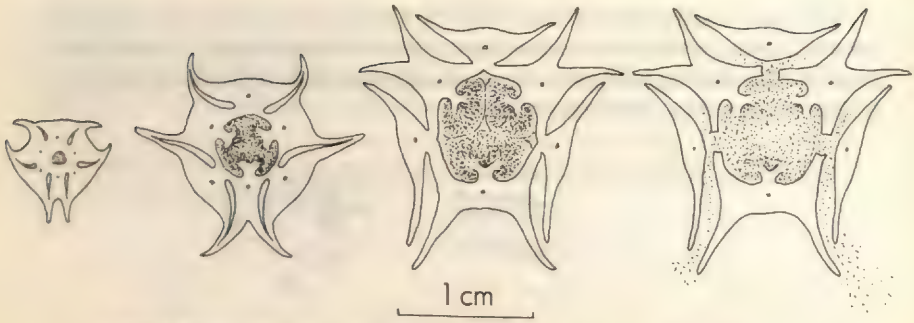

Figure 8. Cross-sections of maturing capsule from ovary to dehiscence (*Dracula nycterina*).

Most species of *Dracula* are distinct and easily identified by the appearance of the flower. A few, variable species or species-complexes (e.g. *D. houtteana* and *D. wallisii*), however, cause much confusion and debate about what they are and where to draw lines. Some populations of these ill-defined species could be the result of natural hybridization. However, natural hybridization is uncommon. A few previously described taxa collected in the wild have been suspected of being natural hybrids, such as *D. hawleyi* (possibly *D. gigas* X *D. levii*) and *D. radio-syndactyla* (probably *D. radiella* X *D. syndactyla*). At least one other, *D. anicula*, (known from a single, collected plant) is now also suspected of being a natural hybrid (possibly *D. cutis-bufonis* X *D. wallisii*).

In open greenhouses in the mountains above Medellín, Colombia, where potential pollinators have free access, spontaneous hybridization is a common occurence. Although in nature the pollinator is probably species-specific, a tiny, promiscuous fruit-fly, frequently seen flying with pollinia attached, obviously is not. Under abnormal conditions created in a greenhouse, natural barriers to hybridization, such as seasonal and regional isolation, break down. Uncommon species now have the opportunity to compete with common species for parenthood. In retrospect, possibly three taxa, now suspected of being volunteer, greenhouse hybrids (*D. circe*, *D. pileus*, and *D. venefica*), were described as species before the avalanche of spontaneous hybrids was realized. Showy hybrids presumed to be products of *D. bella*, *D. inaequalis*, *D. chestertonii* and *D. chimaera* have occurred. The less distinct characters of species such as *D. gorgona*, *D. erythrochaete*, or any of the multitude related to the *D. houtteana-psittacina* complex are not recognizable.

Commercial hybridization has been done only on a limited scale. The first attempt was an intergeneric cross (X*Dracuvallia* Eric) between *Dracula chimaera* and *Masdevallia tovarensis* Rchb.f. by Veitch in 1902. Except for the synymous X*Masdevallia* Circe Stuartii, no other hybrid had been registered before X*Dracuvallia* Memoria Maria Arcila, a cross between *Dracula chimaera* and *Masdevallia veitchiana* Rchb.f., was produced by Colomborquídeas in 1977. The first hybrid between species of *Dracula* was X*D.* Jester (*D. lotax* X *D. platycrater*) created by J & L Orchids in 1982. The next was an unregistered hybrid (*D. vampira* X *D. benedictii*) made by the late Henry Scardefield. Very few other intrageneric hybrids have been attempted, but intergeneric hybrids between *Dracula* and *Masdevallia* have been more popular. Since X*Drvla.* Andean Sunset (*D. platycrater* X *M. veitchiana*) was made by J & L Orchids in 1983, eight more intergeneric crosses have been registered by other growers, mostly in California.

Most species of *Dracula* are relatively easy to cultivate if the right conditions can be met. To obtain the best results, the native environment should be duplicated as closely as possible. Most species are very sensitive to humidity and temperature, so that they are not easily moved to another location or displayed.

Those species with a descending inflorescence should be cultivated in suspended baskets so that ample and unhampered space is provided on the sides and bottom of the container for the emergence of the inflorescences. Baskets or containers made of wood or another vegetable product are preferable to those made of metal, thereby reducing the formation of detrimental compounds.

The choice of substrate varies among growers for their particular growing conditions. Some growers prefer chopped tree-fern mixed with bits of polystyrene foam; others prefer a mixture of chopped fir-bark and charcoal, and with or without bits of polystyrene foam. Some growers add rice husks. The medium should be relatively loose, not only to permit the inflorescence to find its way while descending, but also to provide unrestricted drainage.

Watering should be frequent unless a cool, high humidity can be continuously provided. In the latter case, which is most highly recommended, watering can be decreased to thrice weekly. Relatively ion-free water, or rain water, is far superior to water from most other sources. Dissolved salts and other impurities in water will cause damage to the roots and leaves, eventually killing the plant.

Plants should be protected from direct, or bright, indirect sunlight. Suspension beneath growing benches is used successfully by many growers. Good ventilation in the growing area is required. The temperature should not exceed 24° Centigrade (75° Fahrenheit) during the day, and should descend to about 13° Centigrade (55° Fahrenheit) during the night.

Fertilization is a topic with little agreement. Some growers use a weak solution of cow manure; others prefer a dilute, aqueous solution of a standard fertilizer (e.g. 20-20-20).

Dracula Luer, Selbyana 2: 190, 1978.

Type: *Masdevallia chimaera* Rchb.f., Gard. Chron. 463, 1872. [*Dracula chimaera* (Rchb.f.) Luer]

Ety.: The name *Dracula*, literally meaning a little dragon, and by insinuation, a vampire, satisfies the inclusion of Chimæra as well as other draconian and chiropteran epithets applied to these species. Count Dracula, a reputed human vampire of old Transylvania, was popularized in a novel by Bram Stoker in the late nineteenth century. The Chimæra is a mythological, fire-breathing monster with the head of a lion, the body of a goat, and the tail of a dragon.

Syn.: *Masdevallia* sect. *Saccilabiatae* Rchb.f., Gard. Chron. 1238, 1873.

Ety.: From the Latin *saccilabiatus*, "saccate lipped," referring to the concave lips of the species.

Syn.: *Masdevallia* sect. *Chimaeroideae* Kränzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 125, 1925.

Ety.: Named for the resemblance of the species to *Masdevallia chimaera*.

Plants perennial, small to large, weak to robust, epiphytic to terrestrial, caespitose to shortly repent or ascending; roots few to many, slender to coarse or fleshy. Ramicauls ascending to erect, non-pseudobulbous, shorter than the leaf, slender to stout, unifoliate, partially or completely enclosed by tubular sheaths, the inflorescence emerging laterally with an annular ring (annulus) below the apex of the ramicaul (the leaf-stem abscission layer), often near the base. **Leaf** erect, thinly coriaceous, carinate, sometimes lightly plicate, glabrous, light green to dark green, linear to elliptical, the apex acute, to subacute, notched with a mucro in the sinus, the base more or less petiolate, cuneate, with the petiole sulcate. **Inflorescence** usually racemose, occasionally single-flowered, the flowers usually produced successively, the inflorescence longer or shorter than the leaf, the peduncle usually descending, occasionally suberect or erect, slender to stout, short or long, with few to many bracts; floral bracts tubular, shorter or as long as the pedicel; pedicels stout; ovary trivalvate, deciduous, smooth, shallowly sulcate, to 6-carinate or crested; **sepals** conspicuous, membranous to more or less fleshy, smooth to verrucose and pubescent within, variously connate into a flat or a cupped flower, more or less ovate, acute, acuminate, to obtuse, the apices contracted into tails; **petals** relatively small, thickly cartilaginous, rarely thin, more or less oblong, the apex split into two acute to rounded laminae or valves, verrucose between the valves, the apex rarely lobulate; **lip** fleshy, spathulate, divided usually near the middle by a fold and a constriction into an epichile and a hypochile, the epichile usually larger, rounded, usually concave with radiating, more or less branching lamellae within, the lamellae often incomplete, the hypochile more or less oblong, thick, cleft centrally between thickened plates, the margins erect, obtusely angled, the base truncate, usually flexibly hinged to the column-foot; **column** semiterete, stout, about as long as the petals, narrowly longitudinally winged, toothed at the apex with the anther ventral, the pollinia 2, pyriform, with short caudicles, the stigma ventral, the base of the column produced into a thick column-foot with the apex of the ovary, the tip of the foot usually not elongated beyond the ovary.

The genus is divided into three subgenera, five sections, and two subsections. The large subsection *Dracula* is divided into three series for convenience.

Dracula subgenus **Dracula**

Type: *Dracula chimaera* (Rchb.f.) Luer.

Plants variable as above. Inflorescence pendent to erect, single-flowered to successively many-flowered; sepals variously connate up to near the middle into a widely expanded or cup-shaped flower; petals thickened at the apex, usually bivalvate; lip variously divided into an epichile and a hypochile.

This subgenus contains all the species of the genus except two exceptional species that have been removed to monotypic subgenera. The subgenus is divided into five sections based on variations of the petals and the lip.

Subgenus **Dracula** section **Andreettaea** Luer, Selbyana 2: 191, 1978.

Type: *Dracula andreettae* (Luer) Luer.

Plants large, epiphytic, caespitose. Leaves erect, broad. Inflorescence pendent, successively large-flowered; sepals widely spread; petals slender with revolute margins, the apex subclavate, not valvate, the valve vestigial on the lower third; epichile of the lip reniform, convex, coarsely rugose.

This section contains one species that is characterized by elongated, subclavate petals and a transverse, convex, rugose lip.

Subgenus **Dracula** section **Chestertonia** Luer, Selbyana 2: 191, 1978.

Type: *Dracula chestertonii* (Rchb.f.) Luer.

Plants large, epiphytic, caespitose. Leaves erect, broad. Inflorescence pendent, successively flowered; sepals widely spread; petals stout, the apex more or less hooded and nodular, not bivalvate; epichile of the lip reniform, concave and multiveined.

This section contains two species, *D. chestertonii* and *D. cutis-bufonis*, that are characterized by the stout petals nodular or hooded at the apex, and a transverse, concave, multiveined lip.

Subgenus **Dracula** section **Cochliopsia** Luer, Orquideología 13: 123, 1979.

Type: *Dracula cochliops* Luer & Escobar.

Plants small, epiphytic, caespitose. Leaves erect, slender. Inflorescence erect, successively small-flowered; sepals minutely papillose, free nearly to the base; petals slender, the apex clavate, lightly verrucose, not bivalvate; lip oblong-subpandurate, indistinctly divided into a shallowly concave, tricarinate epichile and a cleft hypochile.

This section contains one small species that is characterized by the nearly free sepals and slender, clavate petals that resemble the stalked eyes of a snail. The lip is not unlike that of many seen in section *Dracula*.

Subgenus **Dracula** section **Dodsonia** Luer, Selbyana 2: 192, 1978.

Type: *Dracula dodsonii* (Luer) Luer.

Plants medium in size, epiphytic, caespitose. Leaves erect, slender. Inflorescence erect, successively flowered; sepals spreading, connate basally into a shallow cup; petals bivalvate at the apex, verrucose between the laminae; lip thick, pyriform, indistinctly divided into a smooth, flat to convex epichile, and a shallowly cleft hypochile.

This section contains four species, *D. dodsonii, D. insolita, D. iricolor* and *D. portillae*, that are characterized by an erect inflorescence, and a lip with an ill-defined, smooth, flat or convex epichile without veins.

Subgenus **Dracula** section **Dracula**

Type: *Dracula chimaera* (Rchb.f.) Luer.

Plants small to large in size, epiphytic, caespitose to shortly repent. Leaves erect, broad to slender. Inflorescence pendent to erect, single-flowered to successively many-flowered; sepals variously connate up to near the middle into a widely expanded or cup-shaped flower; petals bivalvate at the apex, verrucose between the laminae; lip variously divided into an epichile and a hypochile.

This section contains all the rest of the species of the subgenus. It is divided into two subsections based on the presence or absence of a ribbed, lamellate or fringed ovary. The petals of all the species are bivalvate with tubercles between the laminae. The lip of various sizes is distinctly or indistinctly divided into a hypochile and an epichile that is variously supplied with veins or lamellae.

Section **Dracula** subsection **Costatae** Luer, Thesaurus Dracularum 4: 10, 1991.

Ety.: From the Latin *costatus*, "ribbed," referring to the ribbed or crested ovaries.
Type: *Dracula bella* (Rchb.f.) Luer

This subsection is characterized by the ribbed, lamellate or crested ovary.

Section **Dracula** subsection **Dracula**.
Type: *Dracula chimaera* (Rchb.f.) Luer.

This subsection is characterized by the ovary round in cross-section, either smooth or verrucose. It is divided into three series.

Subsection **Dracula** series **Dracula**.
Type: *Dracula chimaera* (Rchb.f.) Luer.

This series contains the large-flowered species with the blades of the sepals more than two centimeters broad or long, and with large lips more than eight millimeters broad.

Subsection **Dracula** series **Grandiflorae-Parvilabiatae** Luer, ser. nov.
Ety.: From the Latin for "large-flowered, small-lipped."
Type: *Dracula platycrater* (Rchb.f.) Luer.

Flores grandes; labella parva.

This series contains the large-flowered species with the blades of the sepals more than two centimeters broad or long, and with small lips less than eight millimeters broad.

Subsection **Dracula** series **Parviflorae** Luer, ser. nov.
Ety.: From the Latin for "small-flowered."
Type: *Dracula lotax* (Luer) Luer.

Syn.: *Dracula* sect. *Microglossa* Luer, Selbyana 2: 192, 1978.
Ety.: From the Greek *microglossa*, "a small tongue," referring to the labellum.
Type: *Dracula lotax* (Luer) Luer (*Masdevallia lotax* Luer, Phytologia 39: 210, 1978.

Flores parvi; labella parva.

This series contains the small-flowered species with the blades of the sepals less than two centimeters broad or long.

Dracula subgenus **Sodiroa** (Luer) Luer, Amer. Orchid Soc. Bull. 58: 1000, 1989.
Bas.: *Dracula* sect. *Sodiroa* Luer, Selbyana 2: 193, 1978.
Type: *Dracula sodiroi* (Schltr.) Luer.

Plants terrestrial, caespitose. Leaves narrow, erect. Inflorescence erect, the raceme laxly simultaneously few-flowered; flowers nutant; sepals deeply connate into a bell-like tube; petals thin, spathulate, the apex narrowly obtuse with a thin, minutely erose margin, and with a layer of small verrucosities inside the margin; lip narrowly oblong, indistinctly divided into a shallowly concave epichile with a small irregular carina, and a hypochile with a pair of erect lamellae.

This subgenus contains one species that is unique in the genus. It is characterized by the erect, simultaneously flowered raceme of nutant, tubular flowers. The petals are membranous. The indistinct epichile of the lip is shallowly rugose and the hypochile contains a pair of tall lamellae.

Dracula subgenus **Xenosia** Luer, Amer. Orchid Soc. Bull. 58: 1001, 1989.
Type: *Dracula xenos* Luer & Escobar, Amer. Orchid Soc, Bull. 58: 1011, 1989.

Plants small, epiphytic, caespitose. Leaves narrow, erect. Inflorescence erect with the raceme congested, successively few-flowered; ovary costate; sepals widely spread, the dorsal sepal free, the laterals connate at the base; petals oblong, longitudinally carinate, the apex acute, minutely verrucose inside the margin; lip obovate, indistinctly divided into a shallowly concave, few-veined epichile and a simple, cleft hypochile.

This subgenus contains one species that is unique in the genus. It is characterized by the essentially free sepals of *Masdevallia*-like flowers; carinate, pointed petals; and a lip with an indistinct transition between the epichile and the hypochile.

CHECK-LIST OF THE SPECIES OF *DRACULA*

Dracula alcithoë Luer & Escobar, Colombia
Dracula amaliae Luer & Escobar, Colombia
Dracula andreettae (Luer) Luer, Colombia, Ecuador
Dracula anicula Luer & Escobar, Colombia
Dracula anthracina Luer & Escobar, Colombia
Dracula aphrodes Luer & Escobar, Colombia
Dracula astuta (Rchb.f.) Luer, Costa Rica
Dracula bella (Rchb.f.) Luer, Colombia
Dracula bellerophon Luer & Escobar, Colombia
Dracula benedictii (Rchb.f.) Luer, Colombia
Dracula berthae Luer & Escobar, Colombia
Dracula brangeri Luer, Colombia
Dracula carcinopsis Luer & Escobar, Colombia
Dracula chestertonii (Rchb.f.) Luer, Colombia
Dracula chimaera (Rchb.f.) Luer, Colombia
Dracula chiroptera Luer & Malo, Ecuador
Dracula circe Luer & Escobar, Colombia
Dracula citrina Luer & Escobar, Colombia
Dracula cochliops Luer & Escobar, Colombia
Dracula cordobae Luer, Ecuador
Dracula cutis-bufonis Luer & Escobar, Colombia
Dracula dalessandroi Luer, Ecuador
Dracula dalstroemii Luer, Colombia, Ecuador
Dracula decussata Luer & Escobar, Colombia
Dracula deltoidea (Luer) Luer, Ecuador
Dracula diabola Luer & Escobar, Colombia
Dracula diana Luer & Escobar, Colombia
Dracula dodsonii (Luer) Luer, Ecuador
Dracula erythrochaete (Rchb.f.) Luer, Cent. Amer.
Dracula exasperata Luer & Escobar, Colombia
Dracula fafnir Luer, Ecuador
Dracula felix (Luer) Luer, Ecuador
Dracula fuligifera Luer, Ecuador
Dracula gastrophora Luer, Ecuador
Dracula gigas (Luer & Andreetta) Luer, Colombia, Ecuador
Dracula gorgona (Veitch) Luer & Escobar, Colombia
Dracula gorgonella Luer & Escobar, Colombia
Dracula hawleyi Luer, Colombia, Ecuador
Dracula hirsuta Luer & Andreetta, Ecuador
Dracula hirtzii Luer, Ecuador
Dracula houtteana (Rchb.f.) Luer, Colombia
Dracula inaequalis (Rchb.f.) Luer & Escobar, Colombia
Dracula incognita Luer & Escobar, Colombia
Dracula insolita Luer & Escobar, Colombia
Dracula iricolor (Rchb.f.) Luer & Escobar, Colombia, Ecuador
Dracula janetiae (Luer) Luer, Peru
Dracula lafleurii Luer & Dalström, Ecuador
Dracula lehmanniana Luer & Escobar, Colombia
Dracula lemurella Luer & Escobar, Colombia
Dracula levii Luer, Ecuador
Dracula ligiae Luer & Escobar, Colombia
Dracula lindstroemii Luer & Dalström, Ecuador
Dracula lotax (Luer) Luer, Ecuador
Dracula mantissa Luer & Escobar, Colombia, Ecuador
Dracula marsupialis Luer & Hirtz, Ecuador
Dracula minax Luer & Escobar, Colombia
Dracula mopsus (Lehm. & Kränzl.) Luer, Ecuador
Dracula morleyi Luer & Dalström, Ecuador
Dracula navarroorum Luer & Hirtz, Ecuador
Dracula nosferatu Luer & Escobar, Colombia
Dracula nycterina (Rchb.f.) Luer, Colombia
Dracula octavioi Luer & Escobar, Colombia
Dracula ophioceps Luer & Escobar, Ecuador
Dracula orientalis Luer & Escobar, Colombia
Dracula ortiziana Luer & Escobar, Colombia
Dracula papillosa Luer & Dodson, Ecuador
Dracula pholeodytes Luer & Escobar, Colombia
Dracula pileus Luer & Escobar, Colombia
Dracula platycrater (Rchb.f.) Luer, Colombia
Dracula polyphemus (Luer) Luer, Ecuador
Dracula portillae Luer & Andreetta, Ecuador
Dracula posadarum Luer & Escobar, Colombia
Dracula presbys Luer & Escobar, Colombia
Dracula psittacina (Rchb.f.) Luer, Colombia
Dracula psyche (Luer) Luer, Ecuador
Dracula pusilla (Rolfe) Luer, Cent. Amer.
Dracula radiella Luer, Ecuador
Dracula radiosa (Rchb.f.) Luer, Colombia, Ecuador
Dracula X *radio-syndactyla* Luer, Colombia
Dracula rezekiana Luer & Hawley, Ecuador
Dracula ripleyana Luer, Costa Rica
Dracula robledorum (P. Ortiz) Luer & Escobar, Colombia
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Dracula severa (Rchb.f.) Luer, Colombia
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Dracula simia (Luer) Luer, Ecuador
Dracula sodiroi (Schltr.) Luer, Ecuador
Dracula syndactyla Luer, Colombia
Dracula trinympharum Luer, Ecuador
Dracula tubeana (Rchb.f.) Luer, Ecuador
Dracula ubangina Luer & Andreetta, Ecuador
Dracula vampira (Luer) Luer, Ecuador
Dracula velutina (Rchb.f.) Luer, Colombia
Dracula venefica Luer & Escobar, Colombia
Dracula venosa (Rolfe) Luer, Ecuador
Dracula verticulosa Luer & Escobar, Colombia
Dracula vespertilio (Rchb.f.) Luer, Cent. Amer., Colombia, Ecuador
Dracula vinacea Luer & Escobar, Colombia
Dracula vlad-tepes Luer & Escobar, Colombia
Dracula wallisii (Rchb.f.) Luer, Colombia
Dracula woolwardiae (Lehm. ex Kränzl.) Luer, Ecuador
Dracula xenos Luer & Escobar, Colombia

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KEY TO THE SUBGENERA, SECTIONS, SUBSECTIONS AND SPECIES OF *DRACULA*.

Some species of *Dracula* exhibit marked variations in the size and color of the flowers. Therefore, some species will appear more than once in the key. Similar species have been brought together for comparison.

The Latin terms *carina* and *lamella* are sometimes used interchangeably. *Carina* usually indicates a proportionately thicker *lamella*, and *lamella* usually indicates a thinner *carina*.

1 Inflorescence pendent to erect with a solitary flower or a successively flowered raceme; ovary smooth to lamellate; sepals variously connate into a widely expanded, or a cup-shaped flower; petals thickened, variable; lip variably divided into an epichile and a hypochile 2

Subgenus **Xenosia**

1' Inflorescence erect, successively few-flowered; dorsal sepal free, the laterals shortly connate; ovary costate; petals oblong, longitudinally carinate, acute, not bivalvate; lip obovate-subpandurate, indistinctly divided into an epichile and a hypochile ..... *D. xenos*

Subgenus **Sodiroa**

2 Inflorescence erect, usually a laxly simultaneously few-flowered raceme; flowers pendent; sepals deeply connate into a bell-like tube; petals thin, papillose within the margin; lip narrowly oblong, indistinctly divided into an epichile and a hypochile ..... *D. sodiroi*

* * *

2' Inflorescence pendent to erect, single-flowered to a successively many-flowered raceme; sepals variously connate to near the middle into a widely expanded or cup-shaped flower; petals thickened at the apex, usually bivalvate; lip variously divided into an epichile and a hypochile 3

* * *

Subgenus **Dracula**

3 Petals bivalvate at the apex, papillose between the laminae.....7

3' Petals more or less clavate, not bivalvate at the apex 4

Section **Cochliopsia**

4 Inflorescence erect, successively small-flowered; petals narrow, longer than the column, clavate, verrucose at the apex; lip oblong, indistinctly divided into an epichile and a hypochile ..... *D. cochliops*

* * *

4' Inflorescence descending or pendent, successively medium-sized to large-flowered; petals variously clavate; lip distinctly divided into a hypochile and a transversely expanded epichile.....5

Section **Andreettaea**

5 Petals narrowed above the middle, clavate with the inner valve below the middle; epichile convex and coarsely rugose..... *D. andreettae*

* * *

Section **Chestertonia**

5' Petals stout, more or less nodular and hooded at the apex; epichile concave, with multiple, radiating veins 6

6 Epichile nearly as broad as the synsepal with the hypochile inflexibly attached to the column-foot ..... *D. chestertonii*
6' Epichile about half as broad as the synsepal with the hypochile flexibly attached to the column-foot ..... *D. cutis-bufonis*

* * *

7 Inflorescence pendent to erect, single-flowered, or a successively many-flowered raceme; sepals variously connate to near the middle into a widely expanded or cup-shaped flower; lip variously divided into an epichile and a hypochile 11

Section **Dodsonia**

7' Inflorescence erect, successively flowered; sepals connate into a shallowly cupped flower; lip pyriform, obscurely divided into a smooth, convex or flat epichile and a hypochile 8

8 Sepals mauve or bluish, with the tails ca. 1 cm long ..... *D. iricolor*
8' Sepals more or less longitudinally striped with brown, with the tails 2 to 4 cm long 9

9 Sepaline tails white, ca. 4 cm long; epichile of the lip about as wide as the hypochile ..... *D. dodsonii*
9' Sepaline tails not white, 2 to 3 cm long; epichile of the lip considerably wider than the hypochile 10

10 Habit shortly repent; lateral sepals connate to near the middle ..... *D. portillae*
10' Habit caespitose; lateral sepals connate to above the middle ..... *D. insolita*

* * *

Section **Dracula**

11 Ovary round in cross-section, smooth, sulcate, to verrucose 23

Subsection **Costatae**

11' Ovary costate to lamellate, often denticulate or fringed, with the crests especially noticeable in the fruit 12

12 Lateral sepals broadly oblong, expanded transversely; ovary tall-carinate, not denticulate-fimbriate ..... *D. berthae*
12' Lateral sepals not transversely expanded; ovary costate to carinate, denticulate-carinate, or fimbriate-carinate 13

13 Ovary low-carinate or ribbed, irregular to slightly denticulate 14
13' Ovary tall-carinate-fimbriate 17

14 Inflorescence pendent 15
14' Inflorescence erect to suberect 16

15 Inflorescence more than 15 cm long, single-flowered; sepals long-pubescent within ..... *D. ophioceps*
15' Inflorescence less than 10 cm long, successively few-flowered; sepals stellate-pubescent within ..... *D. mopsus*

16 Ovaries frequently forming capsules; blades of the sepals 8 to 9 mm long with the tails 25 to 35 mm long ..... *D. felix*
16' Ovaries infrequently forming capsules; blades of the sepals 5 to 6 mm long with the tails ca. 10 mm long ..... *D. mantissa*

17 Epichile suborbicular, shallowly concave with the lamellae higher than the margins 18
17' Epichile reniform to suborbicular, broader than long, with or without veins... 19

18 Inflorescence pendent; sepals connate into a deeply cupped flower..... *D. venosa*
18' Inflorescence more or less horizontal; sepals connate into a widely spread flower ..... *D. deltoidea*

19 Sepals deeply connate into a cupped flower; epichile ca. 4 mm wide, minutely verrucose within ..... *D. inaequalis*
19' Sepals shallowly connate into a widely spread flower; epichile more than 5 mm wide 20

20 Epichile flat without involute sides, minutely verrucose..... *D. janetiae*
20' Epichile concave with involute lateral margins..... 21

21 Epichile smooth within..... *D. vespertilio*
21' Epichile with elevated veins within 22

22 Blades of the sepals less than 2 cm long; petals narrowly obovate..... *D. nycterina*
22' Blades of the sepals more than 3 cm long; petals flabellate..... *D. bella*

Subsection **Dracula**

23 Flowers small, the blade of the dorsal sepal less than 2 cm long..... 66

Series **Dracula**

23' Flowers large, the blade of the dorsal sepal more than 2 cm long or broad..... 24

24 Epichile more than 8 mm broad unexpanded 25
24' Epichile less than 8 mm broad unexpanded 47

25 Epichile with the margins flat and thin, not incurved..... *D. simia*
25' Epichile concave 26

26 Epichile transverse, broader than long..... 27
26' Epichile cymbiform to suborbicular, longer than broad..... 29

27 Epichile trapeziform, with obtusely angled lateral margins..... *D. polyphemus*
27' Epichile reniform 28

28 Sepals narrowly acute, long-caudate; epichile with sloping, suberect lateral margins ..... *D. tubeana*
28' Sepals obtuse, with tails about as long as the blade; epichile with involute margins ..... *D. anicula*

29 Epichile concave with all margins involute 30
29' Epichile concave with the lateral margins barely, or not at all involute 40

30 Sepals coarsely long-pubescent 31
30' Sepals minutely short-pubescent to glabrous 34

31 Epichile suborbicular with the apex usually not much more incurved than the sides 32
31' Epichile cymbiform or suborbicular with the apex inflated or incurved more than the sides 33

32 Inflorescence usually erect; sepals obtuse, with large, confluent spots and a "corona" over the column ..... *D. robledorum*
32' Inflorescence usually descending; sepals acute, diffusely spotted with a pale zone surrounding the column ..... *D. alcithoë*

33 Lip flexibly hinged to the column-foot ..... *D. wallisii*
33' Lip inflexibly attached to the column-foot ..... *D. chimaera*

34 Epichile suborbicular with the anterior margin not significantly more incurved than the lateral margins 35
34' Epichile cymbiform with the apex inflated or incurved more than the sides 39

35 Epichile deeply inflated, subglobose ..... *D. lafleurii*
35' Epichile not subglobose 36

36 Sepals striped or intensely suffused with dark purple, with a "corona" over the column 37
36' Sepals diffusely spotted, without a "corona" over the column 38

37 Blades of the sepals 4 to 6 cm long, 3 to 4 cm wide ..... *D. vampira*
37' Blades of the sepals 2.5 to 3 cm long, 2 to 2.5 cm wide ..... *D. ubangina*

38 Sepals acute, more or less acuminate; epichile with the sides minimally involute, lightly verrucose externally ..... *D. roezlii*
38' Sepals more or less obtuse; epichile with the sides involute, not verrucose externally ..... *D. chiroptera*

39 Sepals narrowly acute, long-caudate ..... *D. severa*
39' Sepals obtuse with the tails about as long as the blade ..... *D. ligiae*

40 Epichile filled with tall, irregular lamellae ..... *D. sibundoyēnsis*
40' Epichile filled with multiple, low, more or less branching lamellae 41

41 Epichile deeply concave with smooth, radiating lamellae, and acutely deflexed upon the hypochile ..... *D. radiosa*
41' Epichile not acutely deflexed upon the hypochile 42

42 Sepals coarsely long-pubescent 43
42' Sepals minutely short-pubescent 45

43 Epichile with erect or sloping sides 44
43' Epichile with the anterior margin involute ..... *D. woolwardiae*

44 Sepals acute, white centrally with a peripheral, purple zone ..... *D. cordobae*
44' Sepals rounded, diffusely dotted with a pale zone with few spots on the inner halves of the lateral sepals ..... *D. gorgona*

45 Sepals with large, confluent, dark purple spots, with a "corona" over the column, with the tails short, about as long as the blade ..... *D. nosferatu*
45' Sepals diffusely dotted without a "corona" over the column, with the tails much longer than the blade 46

46 Epichile filled with numerous, branching lamellae radiating from the base of a central carina ..... *D. pileus*
46' Epichile with 3 carinae and peripheral branches or fragments ..... *D. hirtzii*

Series **Grandiflorae-Parvilabiatae**

47 Epichile convex with low, irregular, branching veins 48
47' Epichile concave 49

48 Sepals narrowly oblong, shallowly connate, with the laterals diverging; epichile suborbicular ..... *D. platycrater*
48' Sepals ovate, deeply connate, with the laterals not diverging: epichile oblong, irregular ..... *D. ortiziana*

49 Epichile elongated with the apical third inflated and acutely reflexed upon the middle third 50
49' Epichile not with the apical third acutely reflexed 51

50 Flower flat ..... *D. marsupialis*
50' Flower cupped ..... *D. gastrophora*

51 Epichile shallowly concave, with low or flat margins 52
51' Epichile concave with involute margins 56

52 Sepals round; epichile with low, erect margins and a taller, thick, verrucose carina ..... *D. amaliae*
52' Sepals more or less ovate, acute to obtuse; epichile with low or sloping margins 53

53 Epichile essentially flat with low veins 54
53' Epichile slightly concave with multiple, tall, fragments of lamellae 55

54 Sepals green, suffused with brown; epichile with numerous, branching, more or less vacuolated veins ..... *D. aphrodes*
54' Sepals white with a callus at the base of the tails; epichile indistinct with a few veins..... *D. levii*

55 Dorsal sepal with a callus at the base of the tail; epichile round..... *D. dalstroemii*
55' Dorsal sepal without a callus; epichile oblong..... *D. verticulosa*

56 Sepals narrow, long-attenuate..... *D. lehmanniana*
56' Sepals not narrow, long-attenuate 57

57 Flower widely expanded, only shallowly cupped at the base..... 61
57' Flower more or less cupped, not widely expanded into a flat flower..... 58

58 Flower conspicuously cupped; sepals obtuse to rounded..... *D. pholeodytes*
58' Flower not widely spreading; sepals acute..... 59

59 Epichile scaphoid, longer than broad 60
59' Epichile deeply inflated, subspherical..... *D. trinympharum*

60 Sepals with a deep laterally compressed mentum; epichile distinctly demarcated from the hypochile ..... *D. gigas*
60' Sepals with a mentum not as narrowly compressed and deep; epichile indistinctly demarcated from the hypochile ..... *D. hawleyi*

61 Sepals coarsely long-pubescent..... 62
61' Sepals shortly pubescent 64

62 Lip proportionately large, flexibly hinged to the column-foot..... 63
62' Lip proportionately small, inflexibly attached..... *D. bellerophon*

63 Lip more or less oblong with all margins involute..... *D. wallisii*
63' Lip more or less round with lateral margins barely involute..... *D. woolwardiae*

64 Sepals deeply pigmented centrally, surrounded by a broad, peripheral, pale zone ..... *D. vlad-tepes*
64' Sepals pale, diffusely dotted with purple 65

65 Sepaline tails 2 to 3 cm long ..... *D. anicula*
65' Sepaline tails ca. 10 cm long ..... *D. orientalis*

Series **Parviflorae**

66 Epichile convex 67
66' Epichile flat to concave..... 68

67 Epichile with tall, irregular, broken lamellae..... *D. dalessandroi*
67' Epichile with low, branching carinae..... *D. diabola*

68 Epichile elongated with the apical third inflated and acutely reflexed upon the middle third ..... *D. marsupialis*
68' Epichile not with the apical third acutely reflexed.....69

69 Epichile smaller than the hypochile, with only one carina.....70
69' Epichile smaller or larger than the hypochile, with 3 or more carinae.....71

70 Habit caespitose; carina of the epichile high.....*D. citrina*
70' Habit repent; carina of the epichile minute.....*D. lotax*

71 Epichile larger than the hypochile, or acutely deflexed upon the hypochile.....79
71' Epichile smaller to about the same size as the hypochile, not acutely deflexed upon the hypochile 72

72 Epichile with three or more lamellae.....73
72' Epichile with one tall, verrucose carinae plus fragments.....*D. lemurella*

73 Flower more or less cupped.....74
73' Flower widely expanded, more or less shallowly cupped at the base.....77

74 Flower deeply cupped; epichile smaller than than the hypochile.....75
74' Flower cupped; epichile about as large as the hypochile, deflexed.....76

75 Sepals pubescent within with stellate hairs; epichile narrower than the hypochile, not subverrucose externally.....*D. pusilla*
75' Sepals minutely verrucose within; epichile transverse, wider than the hypochile, minutely verrucose externally .....*D. benedictii*

76 Sepals white, variously suffused with purple, the margins not recurved; epichile deflexed between 45° and 90° on the hypochile.....*D. velutina*
76' Sepals orange-brown, with recurved margins: epichile on the same plane as the hypochile .....*D. brangeri*

77 Epichile flat with 3 lamellae 78
77' Epichile concave with 3 lamellae.....*D. posadarum*

78 Epichile acute at the apex, slightly incurved, not acutely deflexed upon the hypochile .....*D. decussata*
78' Epichile rounded at the apex, acutely deflexed upon the hypochile.....*D. sergioi*

79 Epichile deeply concave, deflexed upon the hypochile more than 45°.....80
79' Epichile flat or concave, more or less on the same plane as the hypochile, or deflexed less than 45° 85

80 Inflorescence erect; tails of the lateral sepals parallel in apposition; epichile deeply inflated, subspherical .....*D. psyche*
80' Not with the above combination 81

81 Sepals with tails ca. 1 cm long; epichile smaller than the hypochile, with smooth margins ..... *D. lindstroemii*
81' Sepals with tails more than 3 cm long; epichile as large as or larger than the hypochile 82

82 Epichile and column papillose-verrucose ..... *D. exasperata*
82' Epichile and column not papillose-verrucose 83

83 Epichile with multiple lamellae with the tips of the lamellae extending beyond the nargin ..... *D. syndactyla*
83' Epichile with multiple lamellae with a smooth margin 84

84 Sepals with tails less than 5 cm long; epichile with the ends of the lamellae extending to the margin ..... *D.* X *radio-syndactyla*
84' Sepals with tails more than 6 cm long; epichile with the ends of the lamellae not extending to the margin ..... *D. radiella*

85 Epichile flat with low margins 86
85' Epichile concave 89

86 Lip obovoid, widest above the middle without demarcation between epichile and hypochile ..... *D. rezekiana*
86' Lip constricted near the middle 87

87 Sepals lilac, microscopically pubescent; lip thick ..... *D. incognita*
87' Sepals white, more or less suffused with purple, pubescent; lip not thick 88

88 Petals longer than the column, markedly papillose; epichile not deflexed upon the hypochile ..... *D. papillosa*
88' Petals not longer than the column, not markedly papillose; epichile more or less deflexed upon the hypochile ..... *D. velutina*

89 Lateral sepals elongate, acute, connate to the middle with an acute angle; epichile thick with radiating veins ..... *D. fafnir*
89' Lateral sepals subacute, obtuse to rounded, not elongate, connate with an obtuse angle 90

90 Sepals concave, deeply connate into a cupped flower ..... *D. pholeodytes*
90' Sepals shallowly or not concave, forming a widely spread flower more or less shallowly cupped at the base 91

91 Sepaline tails short, about as long as the blades 92
91' Sepaline tails long, slender, much longer than the blades 93

92 Sepals with the apices obtusely acuminate into the tails; epichile with tall, irregular, protuberant lamellae ..... *D. carcinopsis*
92' Sepals with the apices round, abruptly caudate; epichile with low, smooth lamellae ..... *D. morleyi*

93 Epichile concave with erect or involute margins.....105
93' Epichile slightly concave with sloping margins, neither erect not involute.....94

94 Epichile filled with tall, irregular laminae.....*D. hirsuta*
94' Epichile with low, radiating lamellae.....95

95 Epichile with few lamellae (3 to 8).....96
95' Epichile with many lamellae (14 or more).....99

96 Sepaline tails rigid and 2 mm thick.....*D. psittacina*
96' Sepaline tails slender, less than 2 mm thick.....97

97 Flower more or less cupped; epichile deflexed ca. 45°.....*D. velutina*
97' Flower expanded, shallowly cupped at the base; epichile on same plane as the hypochile.....98

98 Peduncle successively flowered.....*D. houtteana*
98' Peduncle single-flowered.....*D. presbys*

99 Leaves narrow, less than 2 cm wide; epichile with the lamina ending in thick teeth protruding beyond the margins.....100
99' Leaves broad, more than 3 cm wide; epichile with the lamina ending in minute teeth at the margin.....101

100 Sepaline tails ca. 2 mm thick, 3 to 4 cm long.....*D. navarroörum*
100' Sepaline tails thin, ca. 10 cm long.....*D. octavioi*

101 Flower white centrally, red-purple peripherally; sepals acute.....*D. cordobae*
101' Flower not with the above combination.....102

102 Sepals with confluent purple spots and a "corona" across the base of the dorsal sepal.....*D. nosferatu*
102' Flower not colored as above.....103

103 Epichile with the anterior margin flat.....*D. gorgonella*
103' Epichile with the anterior margin sloping upward.....104

104 Sepals densely and darkly spotted, with tails ca. 1 mm thick.....*D. minax*
104' Sepals lightly spotted, with tails very slender.....*D. diana*

105 Epichile with one central carina and fragments to either side.....106
105' Epichile with a carina to either side of a central carina.....114

106 Epichile with smooth margins.....107
106' Epichile with denticulate margins.....108

107 Sepals dark purple with tails 5 to 6 cm long; epichile with very few fragments to either side of the carina ..... *D. vinacea*
107' Sepals diffusely dotted with red-purple, tails ca. 3 cm long; epichile with many radiating fragments of veins ..... *D. anicula*

108 Sepaline tails stout, more or less rigid 105
108' Sepaline tails slender 110

109 Sepals white, variously lightly suffused or dotted toward the base, not with the margins recurved ..... *D. psittacina*
109' Sepals orange-brown, with the margins recurved ..... *D. brangeri*

110 Flower flat with the sepals purple-black ..... *D. anthracina*
110' Flower not as above 111

111 Sepals white, variously lightly suffused or dotted toward the base 112
111' Sepals diffusely spotted 113

112 Peduncle successively flowered ..... *D. houtteana*
112' Peduncle single-flowered ..... *D. presbys*

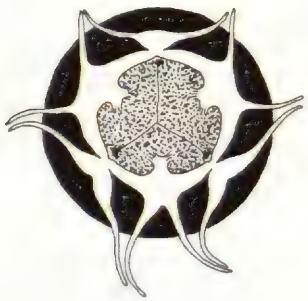
113 Sepaline tails ca. 5 cm long ..... *D. fuligifera*
113' Sepaline tails ca. 10 cm long ..... *D. orientalis*

114 Peduncle erect; lip inflexibly attached to the column-foot ..... *D. venefica*
114' Peduncle usually not erect; lip flexibly hinged to the column-foot 115

115 Leaf more than 3 cm wide ..... *D. circe*
115' Leaf less than 2.5 cm wide 116

116 Sepals suffused with purple basally with a peripheral pale zone ..... *D. ripleyana*
116' Sepals diffusely dotted with red-purple or red-brown 117

117 Lateral sepals ca. 25 mm across ..... *D. erythrochaete*
117' Lateral sepals ca. 35 mm across ..... *D. astuta*



Dracula alcithoë Luer & Escobar, Orquideología 15: 3, 1981.

Ety.: Named for Alcithoë, a woman in Greek mythology who was transformed into a bat.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls slender, erect, 3-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 19-34 cm long including an indistinct petiole, 1.5-2.3 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a lax, successively several-flowered raceme, borne by a stout, sparsely bracted, horizontal to descending peduncle 16-20 cm long, from low on the ramicaul; floral bract, tubular, 10-12 mm long; pedicel 16-18 mm long; ovary verrucose, 8 mm long, round in cross-section; **sepals** pale yellow, diffusely dotted with purple on the outer two-thirds, the inner one-third distinctly demarcated, long-pubescent within, the dorsal sepal ovate, 30-35 mm long, 22-24 mm wide, connate to the lateral sepals for 7 mm to form a widely spread, flat flower, the acute acuminate into a slender, erect, dark purple tail 12-14 cm long, the lateral sepals similar, ovate, oblique, 40 mm long, 25 mm wide, connate 20 mm to form a broad, shallow mentum, the acute apices acuminate into long, slender tails similar to that of the dorsal sepal; **petals** white, marked with red, cartilaginous, oblong, 3.5 mm long, 2 mm wide, the apex thick, bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, recurved; **lip** white, spathulate, 13 mm long, 10 mm wide, the epichile suborbicular, 10 mm long, 10 mm wide, concave with involute, denticulate margins, coursed within by multiple, branching, radiating lamellae, the hypochile oblong, 3 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a thick foot 4 mm long.

COLOMBIA: Dept. of Putumayo: Valle del Sibundoy, old road to Mocoa, Balsayaco, alt. 2500 m, 28 March 1979, *O. Ospina s.n.* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 4845; same collection, flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14108* (MO); Dec. 1989, *R. Escobar 4033* (JAUM).
ECUADOR: Prov. of Imbabura: epiphytic in wet forest in the Los Cedros reserve, alt. 1900 m, 22 Jan. 1993, *S. Dalström, T. Hõijer, H. Wanntorp & M. Read 2000* (MO).

This rare species, first discovered by Brother Octavio Ospina in a forested valley near Sibundoy on the eastern slopes of the Andes in southern Colombia, has recently been discovered in Ecuador on the western slopes. Vegetatively the plant is similar to many others with long, narrow leaves and descending peduncles. The large, widely expanded, long-tailed flowers are distinctive with the well-demarcated pale zone in the center, surrounded by diffusely spotted, long-pubescent sepals. The pattern is reminiscent of that of the Ecuadorian *Dracula simia*. The lip of *D. alcithoë* is suborbicular, concave with involute margins and filled with low, branching lamallae that terminate in numerous, marginal teeth, a rather frequent pattern as is seen in *D. wallisii* and its numerous, widely distributed relatives.

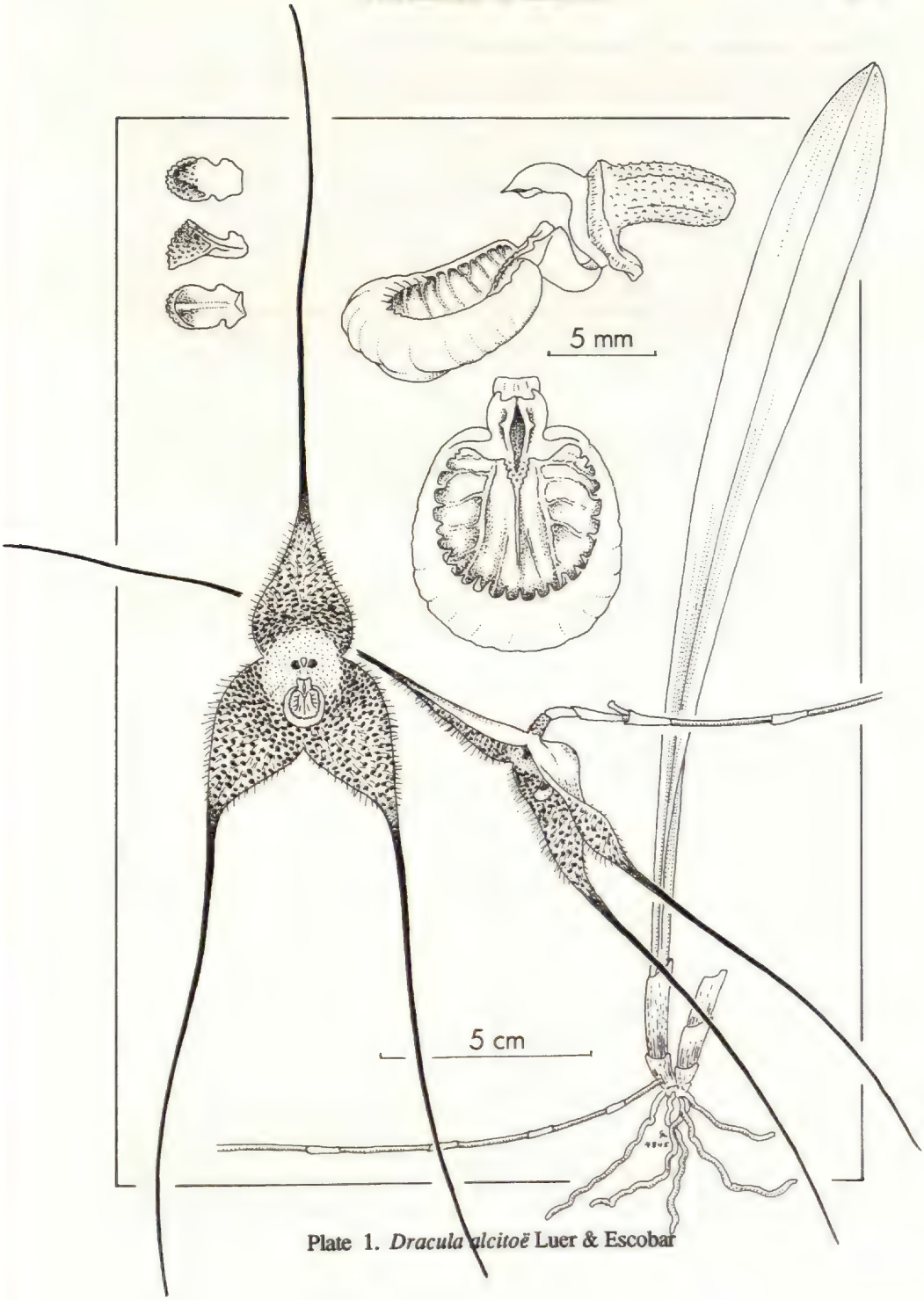


Plate 1. *Dracula alcitoë* Luer & Escobar

Dracula amaliae Luer & Escobar, Orquideología 13: 5, 1978.

Ety.: Named in honor of the late Sra. Amalia Lehmann de Sarria of Popayán, Colombia, granddaughter of F. C. Lehmann, in whose orchid collection this species was discovered.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-4.5 cm long, enclosed by 2-3 close, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-24 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.5-2.5 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme, borne by a purple, horizontal to descending, stout, sparsely bracted peduncle 8-10 cm long, from low on the ramicaul; floral bract tubular, 10-12 mm long; pedicel 15-20 mm long; ovary brown, 6-7 mm long, subverrucose, round in cross-section; **sepals** dull white, suffused with light brown toward the base, covered by a short, dense pubescence, the hairs becoming longer on the lower halves of the lateral sepals, the dorsal sepal transversely ovate to suborbicular, 18 mm long, 26 mm wide, connate to the lateral sepals for 8 mm to form a widely spread flower, the rounded apex abruptly contracted into a slender, erect, purple-brown tail 4-10 cm long, the lateral sepals suborbicular, 26 mm long, 30 mm wide, connate 18 mm into a broad, obtuse mentum, the rounded apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with brown, thickly cartilaginous, oblong-obovate, 3 mm long, 2.5 mm wide, the apex rounded, bivalvate, densely papillose between the laminae, the inner lamina shorter, denticulate; **lip** pinkish white, spathulate, 6 mm long, 6 mm wide, the epichile transversely elliptical, verrucose externally, 4 mm long, 6 mm wide, concave with several, incomplete radiating lamellae, the central lamella thick and verrucose, the hypochile suborbicular, 3 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, semiterete, 4 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Cauca: headwaters of Río Naya, collected by J. Miranda, 1975, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Dec. 1976, *R. Escobar 1746* (Holotype: JAUM); flowered in cultivation, 27 Sept. 1977, *C. Luer 1852* (SEL); same collection, flowered in cultivation by Sra. Amalia Lehmann de Sarria, 2 Feb. 1979, *R. Escobar, s.n.* (JAUM, SEL); same collection, flowered in cultivation by J & L Orchids, Easton, CT., 20 April 1978, *C. Luer 2895* (SEL). Dept. of Valle dal Cauca: epiphytic in forest between Costa Rica and Ginebra, alt. 1800-1900 m, collected by J. Miranda, Jr., Aug. 1987, flowered in cultivation at Colomborquídeas, 15 Dec. 1987, *R. Escobar s.n.* (JAUM); Apr.1988, *C. Luer 13043* (MO).

This species was collected for the first time in 1975 in southwestern Colombia by J. Miranda, a local collector, and cultivated by the late Sra. Amalia Lehmann de Sarria in her orchid collection at Popayán. The species had not been seen again in the wild until 1987 when plants were discovered farther north by the son of J. Miranda. The plants were found growing intermixed with a previously unknown species, *Dracula aphrodes*.

Dracula amaliae is a beautiful species characterized by large, flat, white flowers with round sepals lightly suffused with brown and densely pubescent within, and borne by relatively short peduncles. The epichile of the comparatively small lip is round and verrucose. From the comparatively large, midline carina low lamellae radiate into marginal teeth.

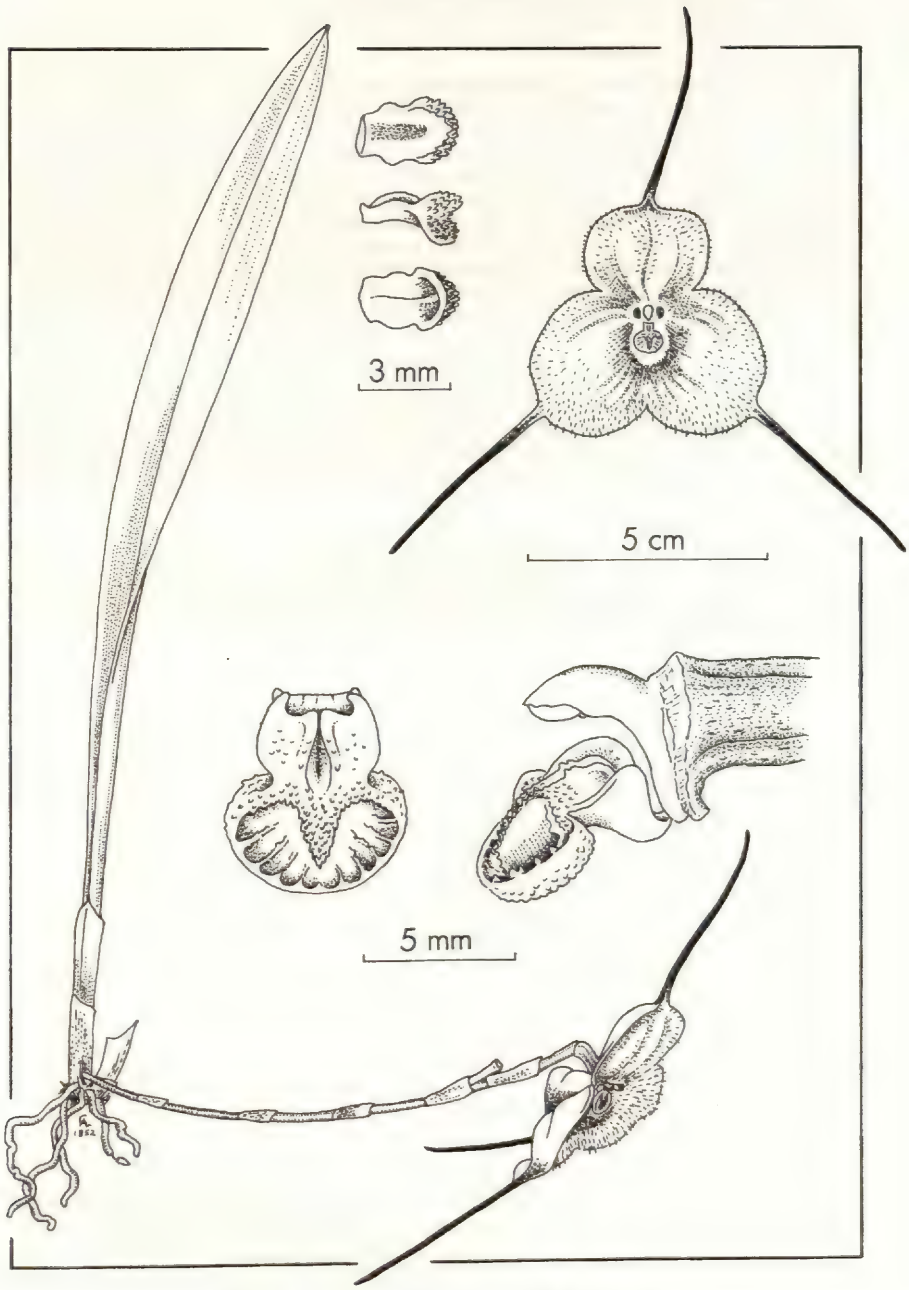


Plate 2. *Dracula amaliae* Luer & Escobar

Dracula andreettae (Luer) Luer, Selbyana 2: 193, 1978.

Bas.: *Masdevallia andreettae* Luer, Phytologia 39: 186, 1978.

Ety.: Named in honor of Angel Andreetta, Salesian father, who with Alexander Hirtz discovered this species in Ecuador.

Plant medium to large in size, epiphytic, caespitose; roots slender. Ramicauls stout, erect, 3-4.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 17-25 cm long including an indistinct petiole, the blade narrowly elliptical, subacute, 2.5-3.5 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a successively few-flowered raceme, borne by a descending, stout, sparsely bracted peduncle 15-20 cm long, green, flecked with white, from low on the ramicaul; floral bract loose, tubular, 12 mm long, 7 mm broad; pedicel 20 mm long; ovary purple, 11-12 mm long, subverrucose, round in cross-section; **sepals** yellowish but diffusely and heavily spotted with dark purple, the inner surfaces minutely papillose, the free margins more or less undulate, the dorsal sepal transversely cordate, 20-25 mm long, 22 mm wide, connate to the lateral sepals for 5 mm to form shallow, gaping cup, the apex subacute, contracted into a slender, yellowish tail 4-5 cm long, the lateral sepals ovate, oblique, 15-20 mm long, connate 15 mm into a transverse lamina 33 mm wide with a broad, shallow mentum, the apices acute, contracted into slender tails similar to that of the dorsal sepal; **petals** protruding, white, with raised spots of purple, cartilaginous, oblong-ovate, curved, 11 mm long, 3-1 mm wide, the inner surface with a serrated plate and papillose along the labellar margin, the apex clavate, rounded, convex, tuberculous, with more or less serrulate margins; **lip** white, suffused with rose, thick, rigid, the epichile transversely oblong, 7 mm long, 12 mm wide unspread, convex, deeply rugose, deflexed on the hypochile, the hypochile cup-shaped, cleft, 5 mm long, 5 mm wide, the concave base hinged to the column-foot; **column** pale yellow, spotted with purple, stout, semiterete, 4 mm long, 2.5 mm wide, with an equally long, stout foot foot 2 mm long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest above Maldonado, alt. 1500-2000 m, Oct. 1975, collected by A. Andreetta and A. Hirtz, flowered in cultivation by Andreetta in Cuenca, 12 July 1977, *C. Luer 1687* (Holotype: SEL).
COLOMBIA: without locality, flowered in cultivation by R. Restrepo at Rionegro, 8 Nov. 1974, *R. Escobar 1381* (JAUM). Dept. of Valle del Cauca: cabeceras del Rio Dagua, collected by J. Miranda, 1978, flowered in cultivation by A. Lehmann de Sarria in Popayán, 2 Feb. 1979, *R. Escobar 1926* (JAUM), flowered in cultivation at Colomborquídeas, 11 Apr. 1988, *C. Luer 13139* (MO); Cerro del Inglés, Serranía de los Paraguas, alt. 2150-2200 m, 6 Jan. 1987, *F. Silverstone-Sopkin, N. Paz, R. González, I. Cabrera, D. Garcés & A. Henao 3010* (CUVC, MO).

This rare, grotesque species was cultivated by R. Restrepo in Medellín, Colombia, as long ago as 1968, but the information concerning the locality or collector had been lost. In 1978, it was rediscovered in Colombia. It was first discovered in Ecuador in 1975 in a remote wet, virgin, forested valley near the Colombian border soon after the valley was invaded by a new road. Within a few years deforestation and fires by settlers had already noticeably reduced the rainfall and humidity.

Dracula andreettae can be confused with no other species. Although not vegetatively distinct, the unique flowers are distinguished by the gaping, verrucose, purple-blotched sepals; a pair of protruding, elongate, clavate petals; and a large, convex, deeply rugose, mushroomlike lip.

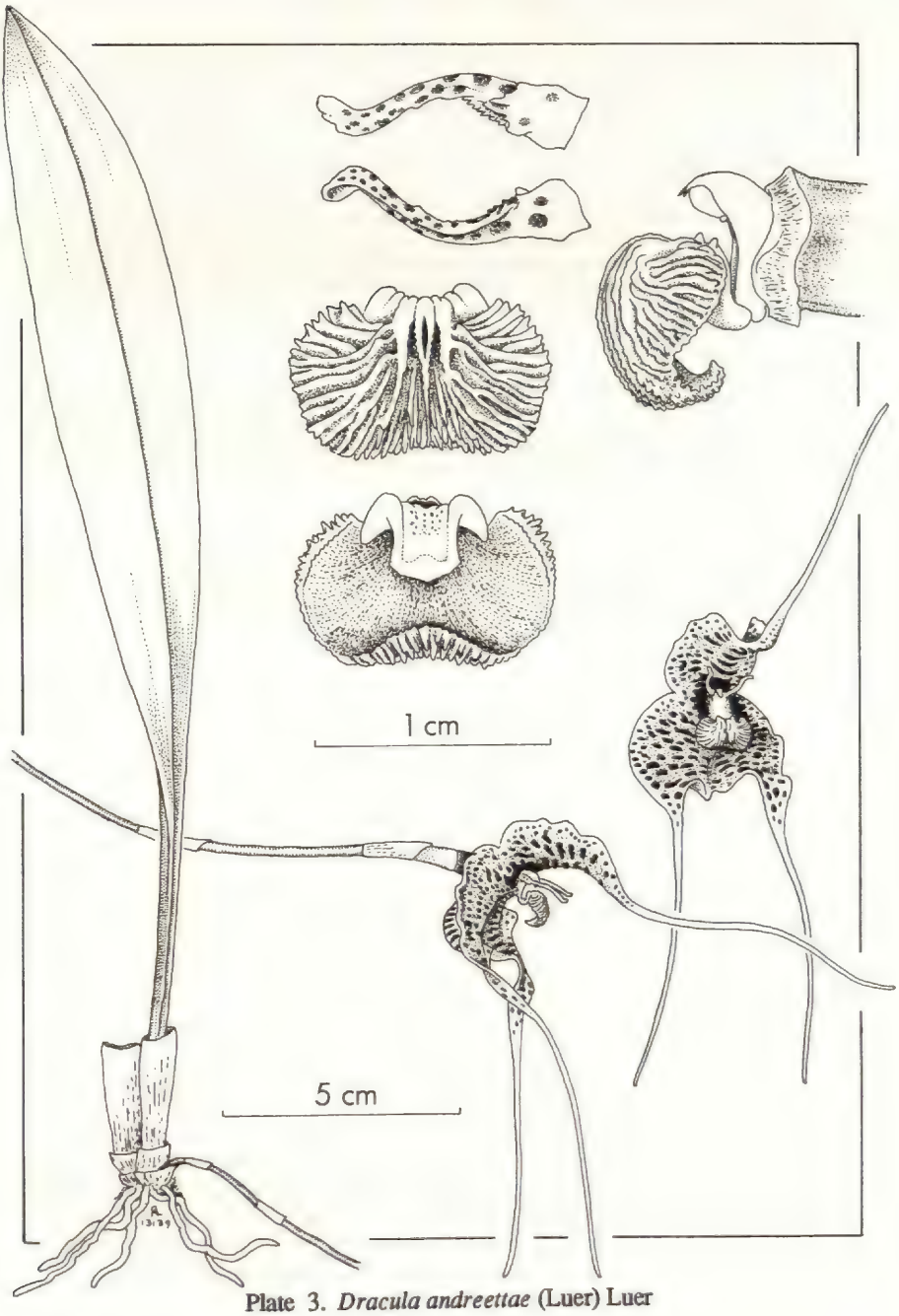


Plate 3. *Dracula andreettae* (Luer) Luer

Dracula anicula Luer & Escobar, Orquideología 15: 6, 1981.

Ety.: From the Latin *anicula*, "a little, old woman," in fancied allusion of the flower to a withered face with an open, edentulous mouth.

Plant medium in size, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2.5-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, subacute, 12-17 cm long including an indistinct petiole, 2.7-3.5 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a stout, green, subverrucose, sparsely bracted, more or less horizontal peduncle 9-15 cm long, from low on the ramicaul; floral bract, tubular, 10-11 mm long; pedicel 10-15 mm long; ovary dark purple, 4 mm long, subverrucose, round in cross-section; **sepals** dull light green to cream, densely dotted with purple-brown above the middle, coalescing into short, transverse bars below the middle, minutely verrucose-pubescent, the dorsal sepal broadly ovate to suborbicular, 20-25 mm long, 20-25 mm wide, connate to the lateral sepals for 6-8 mm to form a widely spread, flat flower, the obtuse to rounded apex abruptly contracted into a slender, erect, brownish purple tail 2.5-4.5 cm long, the lateral sepals broadly ovate, oblique, 20-28 mm long, 26-30 mm wide, connate 10-13 mm into a broad, shallow mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 4 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, recurved; **lip** yellow-orange, marked with red-orange, spathulate, 10-11 mm long, 9-12 mm wide, the epichile transversely elliptical, 6.5 mm long, 9-12 mm wide, concave with incurved lateral margins, coursed within by 11-13 radiating, irregularly branching, incomplete lamellae, the hypochile oblong, 3.5 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 6 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. of Antioquia: Munic. of Argelia, "La Florida," alt. 1900-2100 m, 1973, collector unknown, flowered in cultivation at La Ceja by M. & O. Robledo, 27 Sept. 1977, *R. Escobar 1279* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 1851; same collection, flowered in cultivation at Colombborquídeas, 20 Dec. 1991, *R. Escobar 4086* (JAUM); 5 Mar. 1989, *C. Luer 14096* (MO).

Found growing in a forested region inhabited by both the frequent *Dracula wallisii* and the much less frequent *D. cutis-bufonis* by a forgotten collector near Medellín, this rare taxon is known only from a single plant. All plants presently in cultivation have been derived from divisions of the original plant. It has been suggested that *D. anicula* might be a natural hybrid between the two companion species.

The flowers are borne facing down on a relatively short, more or less horizontal peduncle. The comparatively short tails project rigidly on the horizontal plane. The color of the sepals is reminiscent of both *D. chestertonii* and *D. cutis-bufonis*: a dull green or cream with numerous purple dots and minutely verrucose-pubescent. The bivalvate petals are typical for the genus, not like the bosselated petals of the latter two. The relatively small, concave epichile of the lip is transversely oblong with broken, radiating veins.

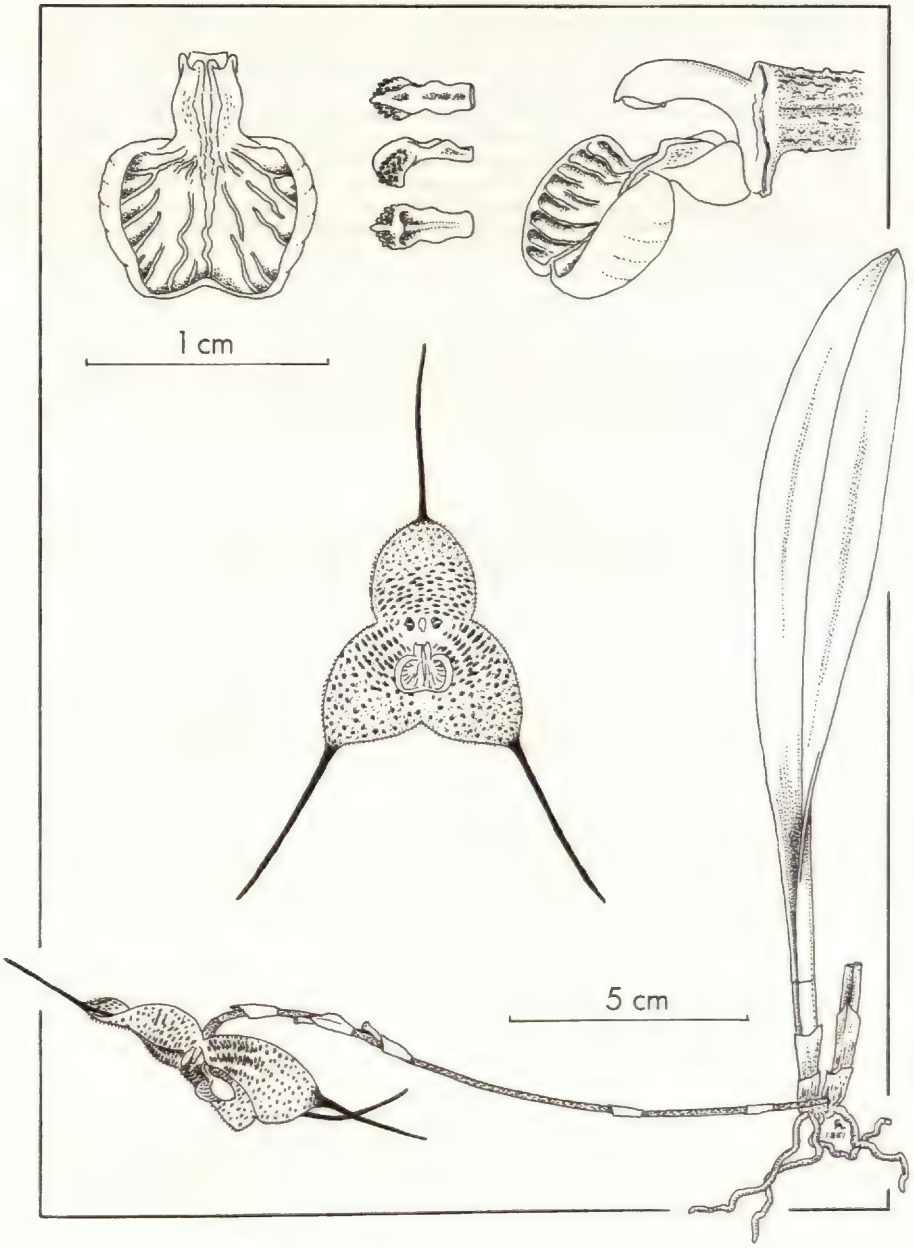


Plate 4. *Dracula anicula* Luer & Escobar

Dracula anthracina Luer & Escobar, Selbyana 7: 64, 1982.

Ety.: From the Greek *anthrakinos*, "coal black," in allusion to the color of the flowers.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls stout, erect, 1.5-2 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly linear-obovate, acute, 11-19 cm long including an indistinct petiole, 0.9-1.4 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a sparsely bracted, horizontal to descending peduncle 5-10 cm long, from low on the ramicaul; floral bract, tubular, 10 mm long; pedicel 15 mm long; ovary dark purple, 6 mm long, subverrucose, round in cross-section; **sepals** deep purple-black, except for a narrow zone of white along the lower margins of the laterals, minutely verrucose within with short hairs on the margins, the dorsal sepal broadly ovate, obtuse, 15 mm long, 12-16 mm wide, connate to the lateral sepals for 5-6 mm to form a flat, widely spread flower, the apex obtuse, contracted into a slender, erect, purple-black tail 3.5-6.5 cm long, the lateral sepals 15-18 mm long, 14 mm wide, connate 12 mm to form a shallow, white mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** white, suffused with pink, spathulate, 7-7.5 mm long, 4.5-5 mm wide, the epichile suborbicular, 4-4.5 mm long, 4.5-5 mm wide, concave with incurved, denticulate margins, with 5-7 more or less incomplete, radiating, lamellae within, verrucose externally, the hypochile oblong, 3 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellow-white, stout, semiterete, 5 mm long, with a stout foot 3 mm long.

COLOMBIA: without locality, obtained by J & L Orchids, Easton, CT., U.S.A., from H. Schmidt-Mumm in Bogotá, flowered in cultivation 23 Oct. 1978, *C. Luer 3457* (Holotype: SEL; Isotype JAUM); flowered in cultivation by M. & O. Robledo at La Ceja, 20 May 1977, *R. Escobar 1784* (JAUM); flowered in cultivation at Colomborquídeas. 11 Apr. 1988, *C. Luer 13153* (MO).

This species was originally obtained by J & L Orchids from Helmuth Schmidt-Mumm of Bogotá, Colombia, without collection data. Probably it is endemic in the Eastern Cordillera. Rodrigo Escobar remembers having seen it once in the forest near Arcabuco in the department of Santander, but the specimen was lost. There is no other record of its having been collected in the wild.

Dracula anthracina is best compared to *D. benedictii*. Both are characterized by small purple-black flowers, but the flower of the latter is deeply cupped while the flower of *D. anthracina* is more or less flat with widely spread sepals. The concave epichile of the lip of *D. anthracina* is considerably broader than the hypochile. The epichile of *D. benedictii* is barely, if at all, broader than the hypochile.

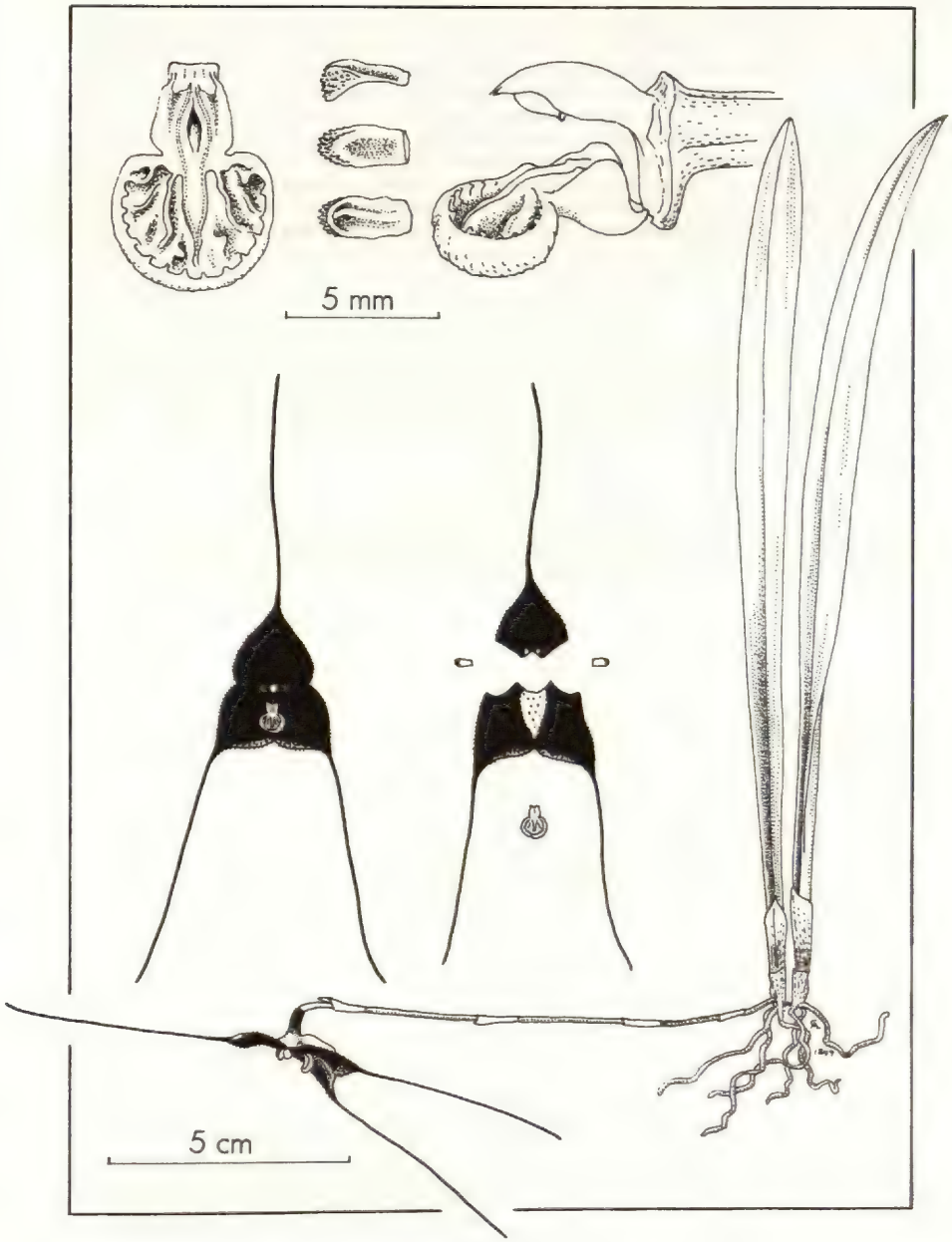


Plate 5. *Dracula anthracina* Luer & Escobar

Dracula aphrodes Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1002, 1989.

Ety.: From the Greek *aphrodes*, "foamy," referring to a morphological character of the epichile of the lip.

Plant large, epiphytic, caespitose; roots fleshy, coarse. Ramicauls erect, stout, 2-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 15-33 cm long, 2-3.7 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme borne by a stout, erect peduncle 15-25 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 15-18 mm long; pedicels 20-30 mm long; ovary 5-6 mm long, round in cross-section; **sepals** glabrous, light dull green, lightly suffused with brown externally, suffused and dotted with brown below the middle within, the dorsal sepal ovate, 25-28 mm long, 20-21 mm wide, connate to the lateral sepals for 8-9 mm to form an expanded flower, cupped at the base, the apex acute, contracted into a slender, erect, purple-brown tail 5 cm long, the lateral sepals ovate, oblique, 28 mm long, 23 mm wide, connate 22 mm into a broad, deep mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, with brown spots, cartilaginous, oblong, 3 mm long, 2.25 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate; **lip** pink, panduriform, 13 mm long, 6 mm wide, the epichile oblong, shallowly concave with the margins not incurved, 8 mm long, 6 mm wide, filled with 3 primary and several incomplete, irregular lamellae, those near the margin breaking up into minute, irregular vacuoles, the hypochile oblong, 3.5 mm long, 3.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base flexibly hinged to the column-foot; **column** light yellow, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Valle del Cauca: epiphytic in forest between Costa Rica and Ginebta (originally reported as "El Dovio"), alt. 1800-1900 m, collected by J. Miranda, Jr., flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *R. Escobar 3978* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 13117.

This species was recently discovered by a professional collector in a rich, unexplored area in southern Colombia growing with *Dracula amaliae*, *D. insolita* and *D. ventriculosa*. All four species were intermixed when purchased by Colomborquídeas Ltda. All four species, superficially similar with large, long, narrow leaves and erect peduncles bearing large, dull-colored flowers, flowered simultaneously in cultivation.

Dracula aphrodes is most similar to the accompanying *D. ventriculosa* that also has glabrous sepals, but the sepals of *D. aphrodes* are subacute instead of obtuse. The most distinguishing feature is the epichile of the lip that is pink and somewhat similar in both species. The epichile of *D. ventriculosa* is filled with tall, radiating lamellae that are often incomplete and present as tall, flat, erect, rounded teeth. The oblong epichile of *D. aphrodes* is sometimes lightly constricted near the middle. It is filled with three primary, low, irregular, lamellae with incomplete radiating veins on either side that break up into irregular vacuoles near the margin.

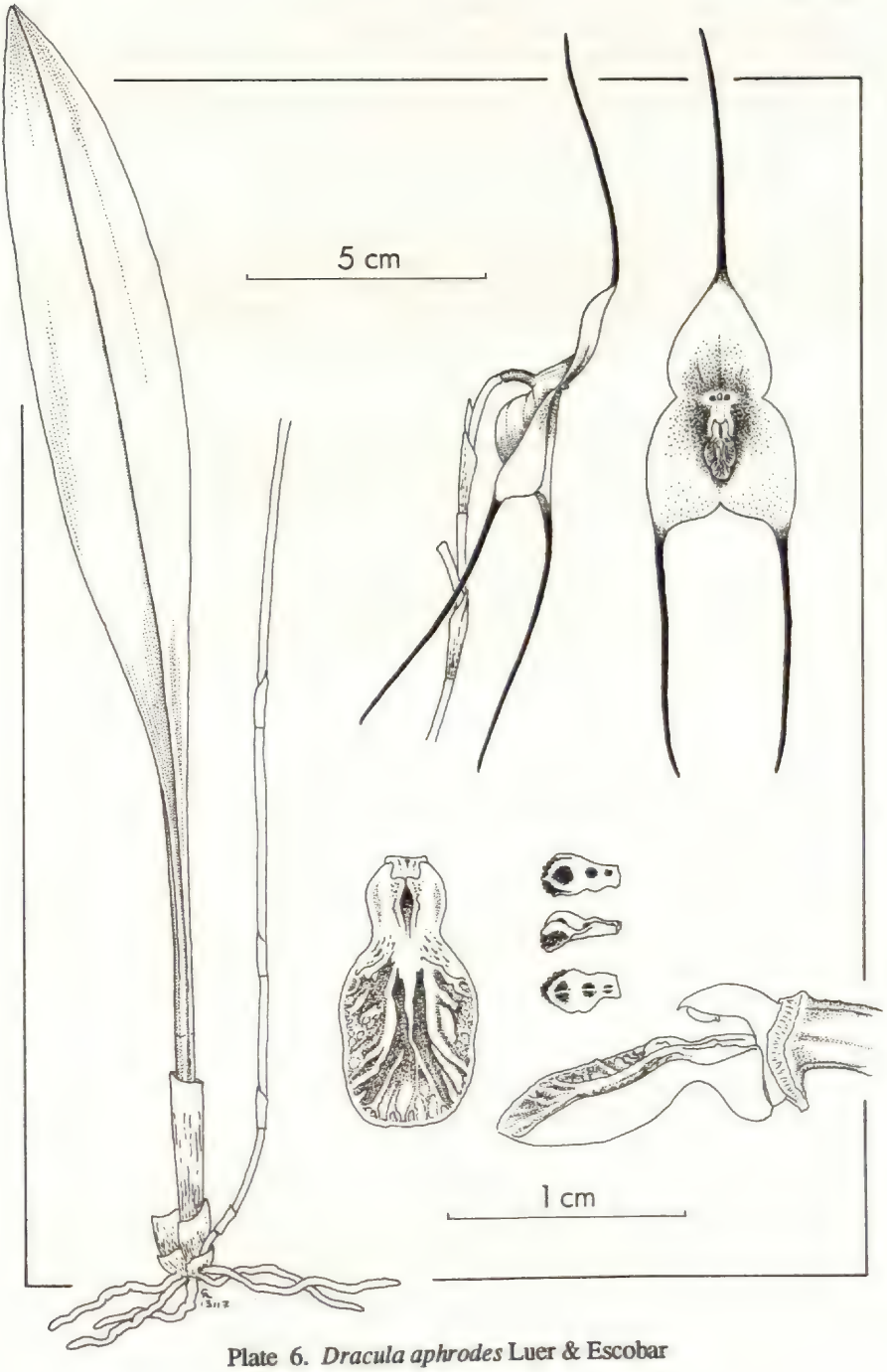


Plate 6. *Dracula aphrodes* Luer & Escobar

Dracula astuta (Rchb.f.) Luer, Selbyana 2: 193, 1978.

Bas.: *Masdevallia astuta* Rchb.f., Gard. Chron. 2: 284, 1886.

Ety.: From the Latin *astutus*, "astute, wily, clever," in allusion to some unknown character Reichenbach saw in the plant.

Syn.: *Masdevallia gorgo* Rchb.f. ex Kränzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 136, 1925.

Ety.: Named for the mythical Gorgon with long, snaky locks.

Syn.: *Masdevallia erythrochaete* Rchb.f. var. *astuta* (Rchb.f.) Woolward, Monogr. Genus *Masdevallia* sub t. 63, 1896.

Syn.: *Dracula gorgo* (Rchb.f.) Luer, Selbyana 2: 195, 1978.

Plant medium in size, epiphytic, caespitose; roots slender. **Ramicauls** slender, erect, 3-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-obovate, acute, 10-22 cm long including an indistinct petiole, 1.5-2.5 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a loose, successively 3- to 5-flowered raceme up to 5 cm long, borne by a slender, more or less horizontal to descending peduncle ca. 15 cm long, from low on the ramicaul; floral bract, tubular, 8-12 mm long; pedicel 8-10 mm long; ovary 4-5 mm long, lightly subverrucose, round in cross-section; **sepals** pale yellow, diffusely dotted, or dotted in lines of purple or brown, pubescent within, the dorsal sepal transversely ovate, 16 mm long, 20 mm wide, connate to the lateral sepals for 7 mm to form a flat, widely spread flower, the apex obtuse, contracted into a slender, erect, dark red-purple tail 7-8 cm long, the lateral sepals broadly ovate, oblique, 25 mm long, 20 mm wide, connate 15 mm to form a broad, shallow mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 4 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina obtuse, recurved; **lip** white, suffused with rose, spathulate, 10 mm long, 6 mm wide, the epichile suborbicular, concave, 6 mm long, 6 mm wide, with the margins involute and toothed, with 3 primary lamellae and a several, radiating, elevated veins near the margin, the hypochile oblong, 4 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** greenish white, stout, semiterete, 4 mm long, with a stout foot nearly as long.

COSTA RICA: without locality, collected by Carder, flowered in cultivation by *Messrs. Shuttleworth & Carder s.n.* (Holotype: W; Isotype: K). Prov. of. Cartago: near San Ramón?, *Endres 137*, not *134* as published by Kränzlin (BM, W, type of *M. gorgo*); Navarro, *C. H. Lankester s.n.* (BM). Without locality, flowered in cultivation by J & L Orchids, 11 Nov. 1977, *C. Luer 2156* (SEL).

This Costa Rican species is commonly treated as a form or a variety of the variable *D. erythrochaete*, but because of the distinct appearance, it will be segregated here. Although basically inseparable from *D. erythrochaete*, it is distinguished by the usually slightly wider leaves, and larger, longer-tailed, more colorful flowers that are widely spread, and with a larger lip. The smaller, more or less cupped variations of the flowers of the usual *D. erythrochaete* are not as colorful.

In his hasty preparation of his monograph of *Masdevallia*, Kränzlin (1925) published every fragment of a specimen he could find in the herbaria at Kew and Vienna. One was a mixed collection of flowers from Endres that he published posthumously for Reichenbach as *M. gorgo*. The locality of both San Ramón and Cartago are given. The flowers are of different sizes, but large ones compatible with *M. astuta* are present. One of the three herbarium sheets labelled *M. gorgo* in Reichenbach's herbarium at W (Vienna) is erroneously labeled in Kränzlin's handwriting as the "type." It is a *Masdevallia*, possibly *M. calura* Rchb.f.

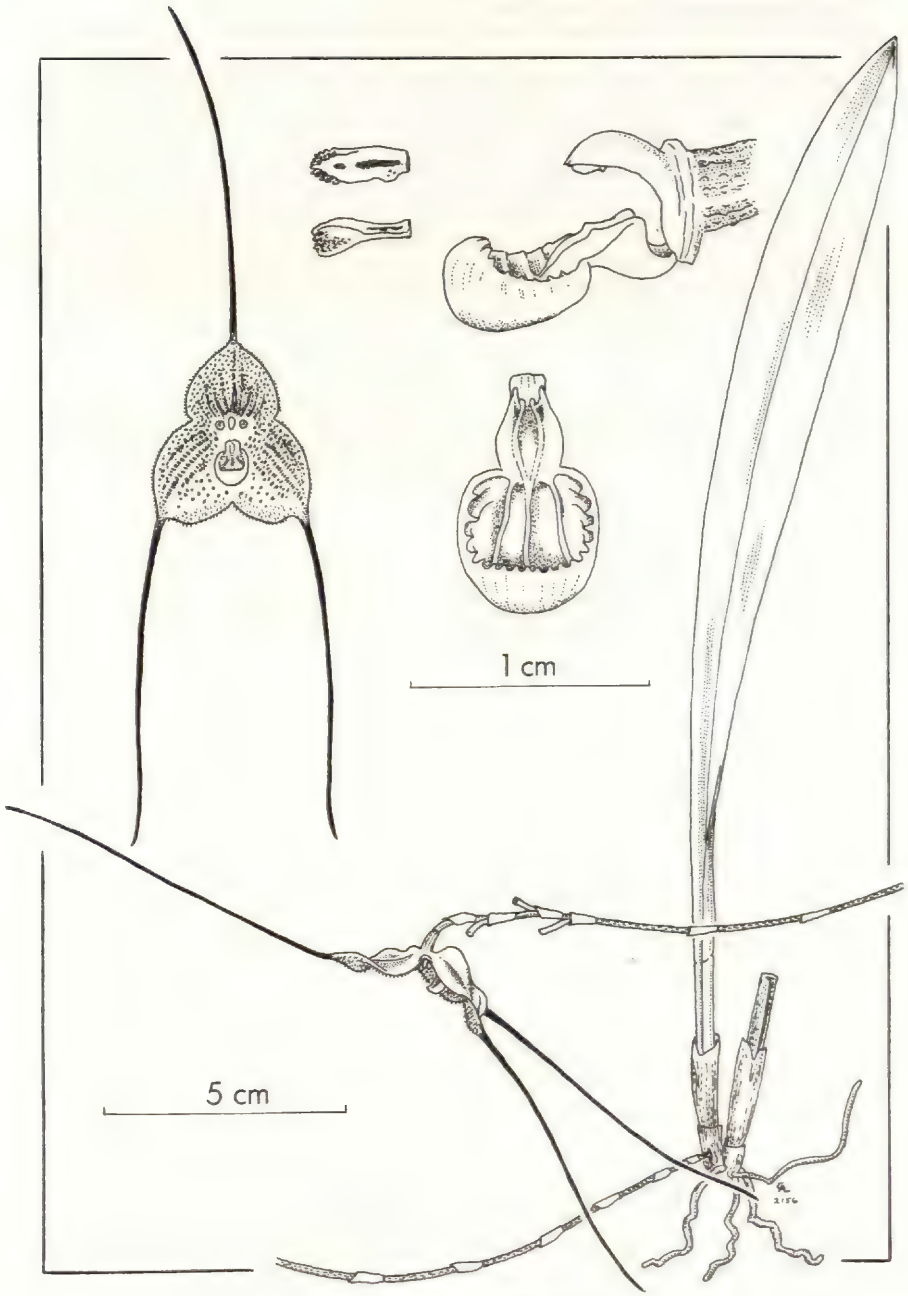


Plate 7. *Dracula astuta* (Rchb.f.) Luer

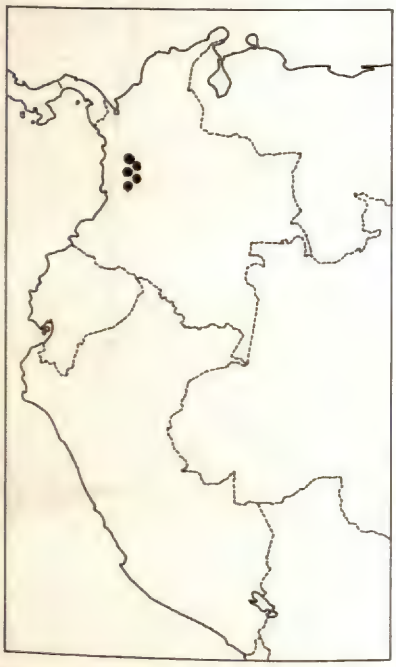
Dracula bella (Rchb. f.) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia bella* Rchb. f., Gard. Chron. 1: 725, 1878.

Ety.: From the Latin *bellus* "beautiful," referring to the quality of the flower.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2.5-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, plicate, carinate, 15-23 cm long including the petiole 3-5 cm long, the blade elliptical, acute, 2.5-4 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a single flower borne by a stout, purple, descending, multibracted peduncle 15-18 cm long, from low on the ramicaul; floral bract tubular, 15-17 mm long; pedicel 15-17 mm long; ovary deep purple, 8 mm long, 6 mm wide, with 6 fringed crests; **sepals** yellow, irregularly dotted and spotted with red-brown, densely short-pubescent within, the dorsal sepal triangular-ovate, 40-44 mm long, 22-24 mm wide, connate to the lateral sepals for 9-10 mm to form a widely spread flower, the apex acute, acuminate into a slender, erect, dark red-brown tail ca. 13 cm long, the lateral sepals obliquely ovate-triangular, obtuse, 40-44 mm long, 26-28 mm wide, connate 30 mm to form a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** yellow, marked with brown, cartilaginous, obovate, 6 mm long, 5 mm wide, the apex bilobed, flabellate, bivalvate, papillose between the laminae, the inner lamina much shorter and denticulate; **lip** white, suffused with yellow on the hypochile, transversely elliptical or reniform, the epichile reniform, 12 mm long, 24 mm wide, the sides smooth, rounded and incurved, with numerous, tall, irregular, radiating lamellae within, the hypochile oblong, 7 mm long, 5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** brown, semiterete, 5 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Antioquia: Cañasgordas, alt. 8000 ft., 1872, *G. Wallis 218* (Lectotype: W); flowered in cultivation at the Herrenhausen Botanic Garden in Hannover, by H. Wendland, collected by *Boxall s.n.* (W); Frontino, *Schmidtchen s.n.* (W); Frontino, alt. 2000 m, 5 Nov. 1884, *F. C. Lehmann 4306* (G); Frontino, Alto de Cuevas, alt. 1950 m, 4 May 1983, *C. Luer, J. Luer, A. Pridgeon, R. Escobar & E. Valencia 9013* (SEL); between Frontino and Urrao, collected by B. Tascón, 1968, flowered in cultivation by M. & O. Robledo at La Ceja, 30 Sept. 1973, *R. Escobar 947A* (JAUM). Dept. of Chocó: Vereda Guangarales, Quebrada "La Fragua," alt. 1900-2000 m, collected by E. Segura, 28 Apr. 1975, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13098* (MO). Dept. of Risaralda: Cañon de Cuanza, alt. 2000 m, collected by J. M. Serna, Apr. 1975, flowered in cultivation by M. & O. Robledo at La Ceja, 12 Mar. 1976, *R. Escobar 1491* (JAUM); Munic. of Pueblo Rico, Tatamá, alt. 1800-2000 m, collected by J. M. Serna, 1969, flowered in cultivation by A. Mejia near Medellín, Nov. 1973, *R. Escobar s.n.* (JAUM); Munic. of Santuario, collected by P. Alvarez, March 1983, flowered in cultivation at Colomborquídeas, 4 July 1987, *R. Escobar 3966* (JAUM) and 10 Apr. 1988, *C. Luer 13154* (MO).



This handsome species is endemic to the Western Cordillera of Colombia where it had been found by many of the early collectors including Wallis, Roezl, Schmidtchen and Boxall. Wallis was acknowledged as the first to find it; he described it as a giant *Masdevallia nycterina*. Boxall succeeded in returning living plants to Europe where they flowered in 1878 with Mr. Bull, and Messrs. Low in England, and Herr H. Wendland at the Herrenhausen Botanic Garden in Hannover.

Dracula bella is easily recognized by the large, yellow flower, diffusely spotted with red-brown, with very long, slender tails, and with a broad, white, mushroom-like lip that dangles in the center. The apices of the petals are broadly expanded and verrucose.

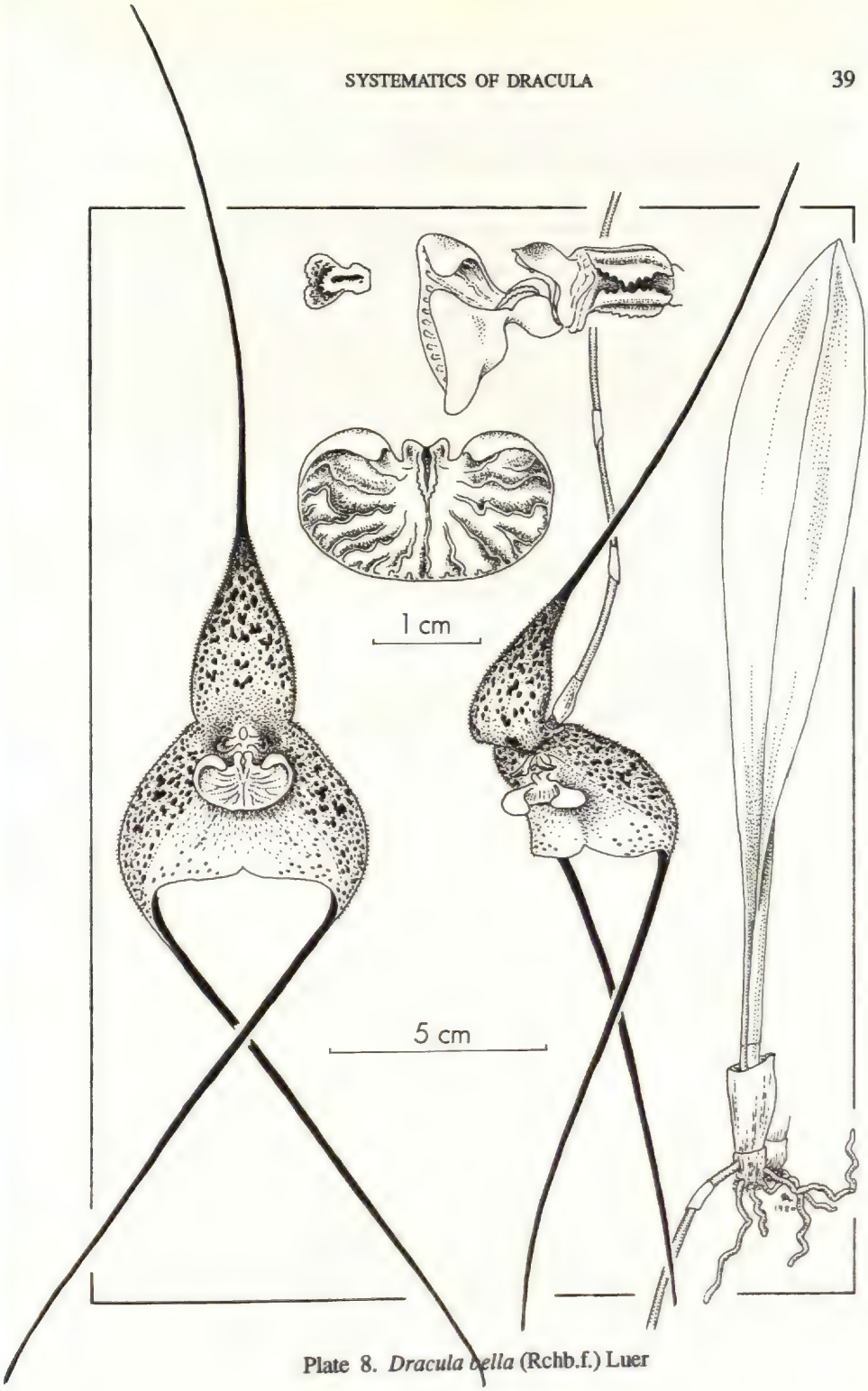


Plate 8. *Dracula bella* (Rchb.f.) Luer

Dracula bellerophon Luer & Escobar, Orquideología 13: 9, 1978.

Ety.: Named for the Greek mythological hero Bellerophon who, while mounted upon Pegasus, slew the Chimæra.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 11-20 cm long including an indistinct petiole, 2-4 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a subdense, successively few-flowered raceme, borne by a purplish, sparsely bracted, horizontal to descending peduncle 12-20 cm long, from low on the ramicaul; floral bract, tubular, 12-17 mm long; pedicel 20-25 mm long; ovary green, 7 mm long, smooth, round in cross-section; **sepals** cream-colored to light yellow, dotted with brown or purple-brown, sometimes along the veins below the middle, diffusely covered by a long, dense, yellowish pubescence, the dorsal sepal broadly ovate, 30 mm long, 26-30 mm wide, connate to the lateral sepals for 10 mm to form a widely spread, shallowly cupped flower, the obtuse to rounded apex contracted into a slender, erect, dark red-purple tail 10-12 cm long, the lateral sepals ovate, oblique, 40-45 mm long, 25 mm wide, connate 20-27 mm into a broad, deep mentum, the acute apices produced into slender tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 4.5 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with orange, spathulate, 9 mm long, 7 mm wide, the epichile transversely elliptical, 5 mm long, 7 mm wide, concave with involute, denticulate margins, with multiple, elevated, radiating veins within, the hypochile oblong, 4 mm long, 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base broadly adherent to the column-foot; **column** white, stout, semiterete, 5 mm long, with a thick foot 4 mm long.

COLOMBIA: ?Dept. of Antioquia: Munic. of Sonsón, collected by H. Schmidt-Mumm, flowered in cultivation at J & L Orchids, Easton, CT., 20 Apr. 1978, *C. Luer 2894* (Holotype: JAUM; Isotype: SEL); same collection, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13109* (MO); same collection, flowered in cultivation at Colomborquídeas, 17 Apr. 1988 *C. Luer 13209* (MO); Dept. of Valle del Cauca: old road from Cali to Buenaventura, El Queremal, alt. 1900 m, collected by J. C. Miranda, Aug. 1986, flowered in cultivation at Colomborquídeas. 17 Apr. 1988, *C. Luer 13209* (MO).

Until recently this species had been known from only a single collection cultivated by Helmuth Schmidt-Mumm of Bogotá, Colombia. Divisions of the plant were cultivated by the Posadas at Colomborquídeas, by the Robledos at La Ceja, and by J & L Orchids at Easton, Connecticut, where the original description and illustration were made.

Although reported as being found in the Central Cordillera of Colombia in the municipality of Sonsón, the original locality of the species had been in doubt. This reasonably accessible area has been thoroughly explored by present-day collectors, but no specimen of *D. bellerophon* has ever been found. The immobile lip suggested the Western Cordillera where all the other known species with an immobile lip are found. In 1986, plants of *D. bellerophon*, differing somewhat in color from the original plant, were discovered west of Cali in the Western Cordillera.

The distinctive, large, long-tailed flower of *D. bellerophon* is pale in color but diffusely covered within by a dense, yellowish, shaggy pubescence. The lip, small in proportion to the size of the sepals, is inflexibly attached to the column-foot as it is in *D. chimaera*. The two species grow sympatrically.

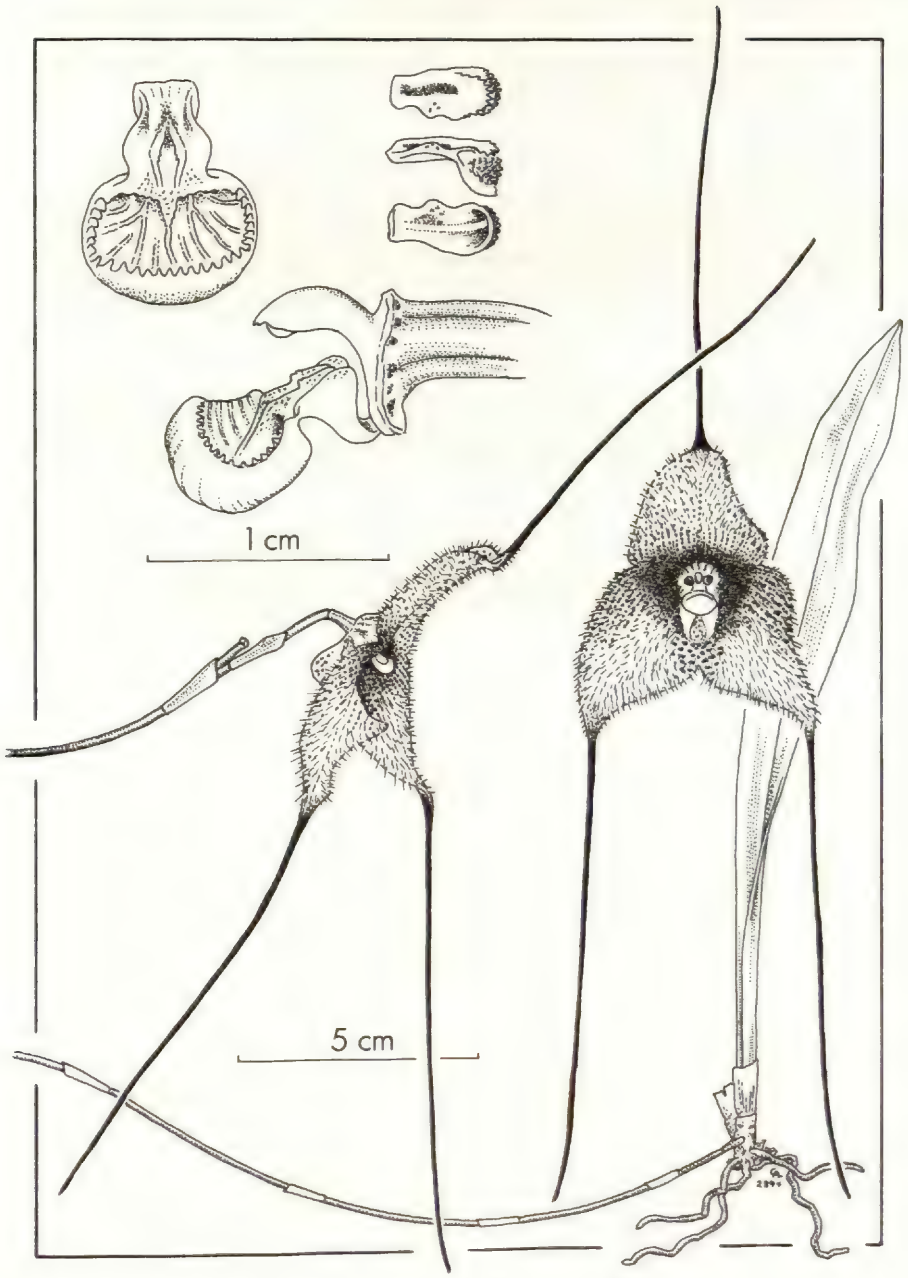


Plate 9. *Dracula bellerophon* Luer & Escobar

Dracula benedictii (Rchb. f.) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia benedictii* Rchb. f., Xenia Orchidaceae 2: 179, 1874.

Ety.: Named in honor of Benedict Roezl, the noted Bohemian collector, who discovered this species.

Syn.: *Masdevallia troglodytes* Morren, Belgique Hort. 27: 97, t. 5, 1877.

Ety.: From the Greek and Latin *troglodytes*, "a cave dweller," in allusion to the appearance of the lip dwelling deep within the cup-shaped, black flower.

Syn.: *Dracula troglodytes* (Morren) Luer, Selbyana 2: 198, 1978.

Syn.: *Dracula hubeinii* Luer, Phytologia 47: 60, 1980.

Ety.: Named in honor of Herr Hubein of Berlin, who collected this species.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 13-18 cm long including an indistinct petiole, 1.2-1.6 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a purplish, several-bracted, horizontal to descending peduncle 3-5 cm long, from low on the ramicaul; floral bract, tubular, 7-8 mm long; pedicel 10-14 mm long; ovary purple, 4 mm long, subverrucose, round in cross-section; **sepals** white, suffused with light purple externally and glabrous, minutely verrucose and purple-black to brown within, white in the mentum of the synsepal where it is spotted with purple, the dorsal sepal transversely obovate, concave, 6 mm long, 10 mm wide, connate to the lateral sepals for 4 mm to form a deeply cupped flower, the obtuse apex abruptly contracted into a slender, erect, blackish tail 2-3.5 cm long, the lateral sepals transversely ovate, oblique, concave, 10 mm long, 12 mm wide, connate 8 mm to form a broad, shallow mentum, the transverse apices contracted into tails similar to that of the dorsal sepal; **petals** white, marked with purple, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with rose, spathulate, 4-5 mm long, 3 mm wide, the epichile lightly verrucose, transversely ovoid, 2.5 mm long, 3 mm wide, concave with erect, lightly involute margins and a thick, central carina flanked on either side by 1-2 incomplete, raised veins, the hypochile oblong, 3 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellowish white, stout, semiterete, 3.5 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. of Antioquia: near Medellín, *B. Roezl s.n.* (Holotype: W); El Roblarcito near Sonsón, alt.2400 m, *F. C. Lehmann s.n.* (G); Munic. of Carmen de Viboral, alt. 2300 m, collected by W. Teague & N. Lopez, flowered in cultivation at Colomborquídeas, 13 Nov. 1987, *R. Escobar 3969* (JAUM). Dept. of Quindio: Río Barbas, alt. 2180 m, 5 Feb. 1987, *R. Escobar & E. Valencia 3785* (JAUM). Dept. of Risaralda: Río Risaralda, alt. 2000-2300 m, 20 Oct. 1883, *F. C. Lehmann 3217* (BM, BR, G); Munic. of Pueblo Rico: Cerro Lucero, alt. 2000-2200 m, 1970, collected by J. M. Serna, flowered in cultivation by A. Mejia in Medellín, May 1972, *R. Escobar 428* (JAUM); Quebrada La Congoja, alt. 1800-2000 m, 1971, collected by J. M. Serna, flowered in cultivation by A. Mejia in Medellín, Nov. 1973, *R. Escobar 969* (JAUM); flowered in cultivation at La Ceja by M. & O. Robledo, 7 Oct. 1977, *C. Luer 1906* (SEL); near Pueblo Rico, alt. 1700 m, March 1988, collected by J. Serna, flowered in cultivation by L. C. Vieira in Medellín, 12 Apr. 1988, *C. Luer 13178* (MO). Without locality, cultivated plant, Oct. 1879, labelled *Masdevallia troglodytes* (W). Without locality, collected by Hubein, flowered in cultivation by B. Würstle at Spielberg, Germany, 19 May 1980, *C. Luer 5247* (SEL, type of *D. hubeinii*).

Dracula benedictii is one of numerous discoveries of the intrepid Bohemian collector Benedict Roezl. A species of doubtful identification (possibly *D. anthracina*) collected by Gustav Wallis is also labelled *benedictii* in Reichenbach's herbarium. Living plants of *D. benedictii* were imported into Europe as early as 1876,

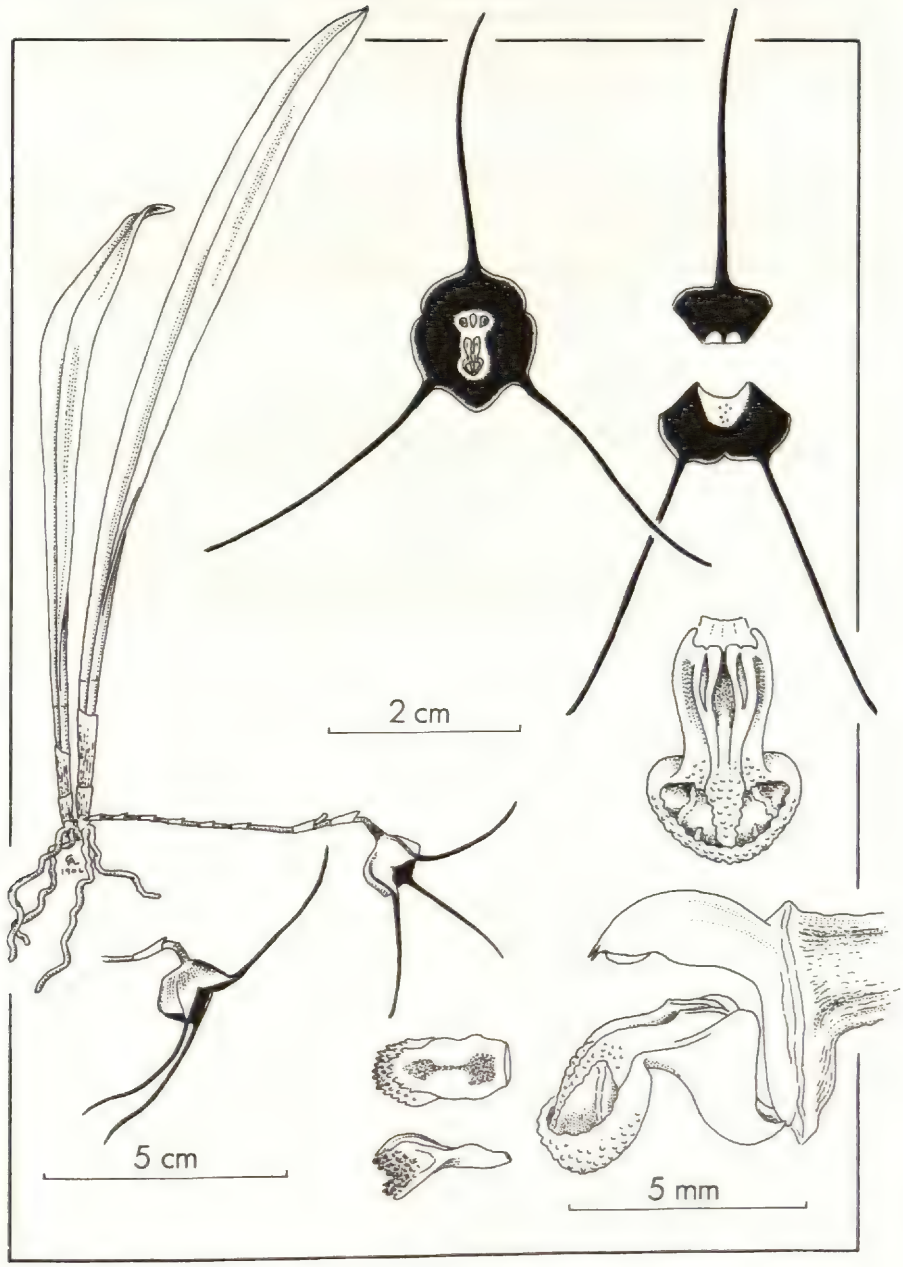


Plate 10. *Dracula benedictii* (Rchb.f.) Luer

flowering first with M. Oscar-Lamarche at Liège, Belgium.

Dracula benedictii is easily identified by the small, deeply cup-shaped flower, whitish on the outside and full black with tiny warts on the inside. Occasionally the background color within the cup is paler or cream-colored, and studded with the tiny, brown warts. The latter form was described as *D. hubeinii*.

Dracula berthae Luer & Escobar, Orquideología 13: 115, 1979.

Ety.: Named in honor of Sra. Bertha S. de Lasema, of Bogotá, Colombia, in whose orchid collection this species was discovered.

Plant small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 1.5-4 cm long, enclosed by 2-3 thin, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 10-15 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 0.8-1 cm wide, gradually narrowed below to the base. **Inflorescence** a single flower borne by a slender, purple, horizontal to ascending, sparsely bracted peduncle 8-10 cm long, from low on the ramicaul; floral bract tubular, 8-9 mm long; pedicel 15-17 mm long; ovary deep purple-brown, 4 mm long, 4 mm wide, triangular with a pair of tall wings at each margin; **sepals** white, covered within by evenly spaced, small, red-purple papillae, each papilla provided with 4-10 short hairs, the dorsal sepal ovate-triangular, 10 mm long, 7 mm wide, connate to the lateral sepals for 2 mm to form a shallow, widely spread sepaline cup, the acute apex contracted into a slender, erect, dark red-brown tail ca. 25 mm long, the lateral sepals ovate, oblique, 17 mm long, 19 mm wide, diverging 180 degrees, connate 5 mm into a broad, shallow mentum, the acute apices contracted into slender, white tails ca. 21 mm long; **petals** green, marked with purple-brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter, denticulate; **lip** white, minutely dotted with pink, ovate-obpyriform, 3.75 mm long, 1.5-2 mm wide, the epichile indistinct, rounded, 1.5 mm long, 1.5 mm wide, convex, minutely papillose, with a few low, radiating veins, the hypochile ovoid, 2.5 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Boyacá: epiphytic in forest between Arcabuco and Moniquirá, alt. 2300-2600 m, 1976, collected by P. García, cultivated by Sra. Bertha de Lasema, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Oct. 1977, *R. Escobar 1817* (Holotype: JAUM), 11 Oct. 1977, *C. Luer 1997* (SEL); flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13159* (MO).

This pretty little species from the Eastern Cordillera of Colombia is known from a single collection in 1976 by P. García. It was cultivated by Sra. Bertha de Laserna in Bogotá, and a division of the plant was given to Dr. and Sra. Oscar Robledo who cultivated it at La Ceja. All plants presently in cultivation stem from the original collection. *Dracula berthae* is popular in collections, not only because of the ease with which it grows, but also because the erect inflorescences permit it to be cultivated in a small pot instead of a basket.

Dracula berthae is characterized by the profusion of small, widely spread, white flowers beset with numerous, evenly spaced, red-purple warts, each wart bearing

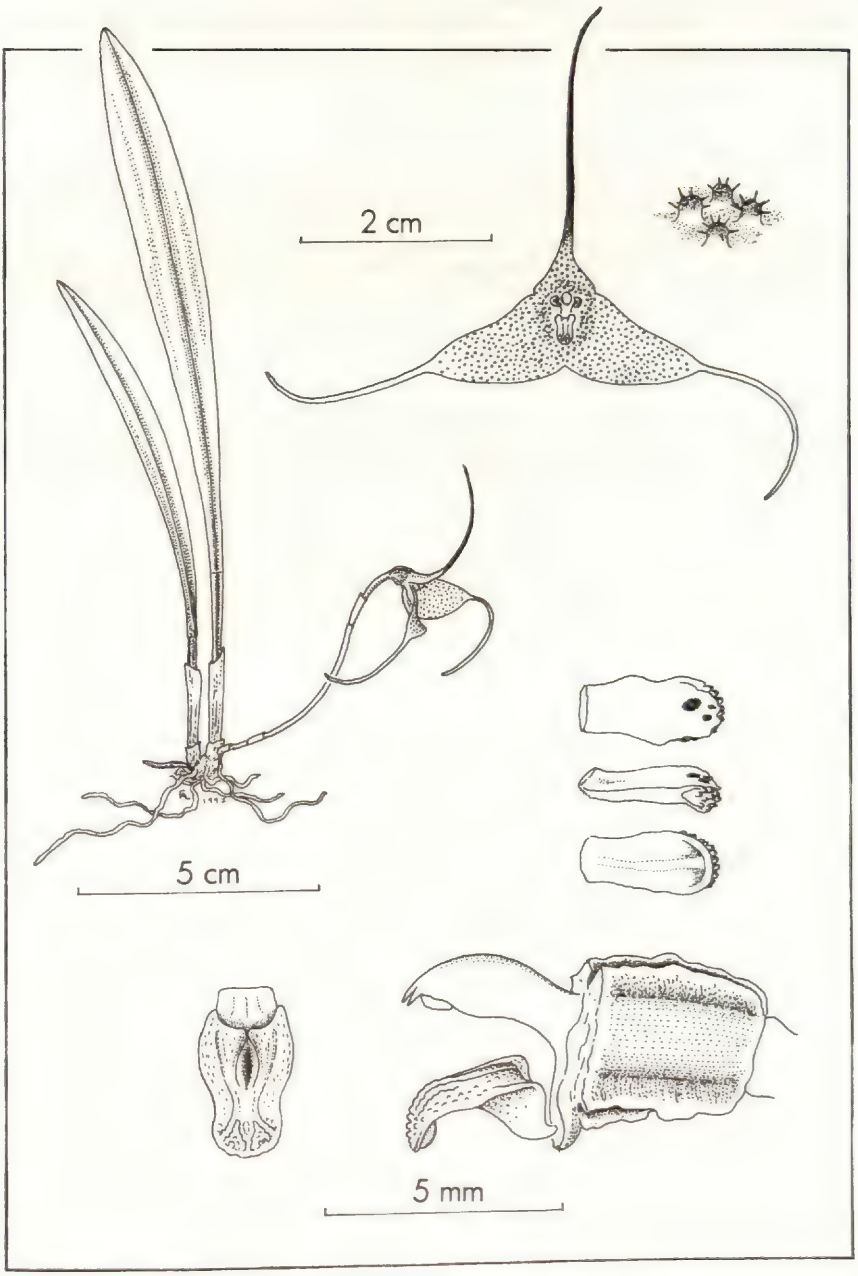


Plate 11. *Dracula berthae* Luer & Escobar

several short hairs. The lateral sepals are oblong, considerably larger than the dorsal sepal and spread in opposite directions. Each sepal is terminated by a filamentous tail, that of the dorsal sepal red-brown, those of the lateral sepals, white. The convex, rugose epichile of the minute lip is smaller than the hypochile.

Dracula brangeri Luer, Orchideeën 48: 47, 1986.

Ety.: Named in honor of the late Christian Branger, of Lunteren, The Netherlands, who successfully cultivated this species in his collection of Draculas and Masdevallias.

Plant medium in size, presumably epiphytic, caespitose; roots coarse. Ramicauls erect, 3-4 cm long, enclosed by 2-3 loose, sheaths. **Leaf** erect, thinly coriaceous, carinate, 11-15 cm long, the blade narrowly obovate, acute, 1-1.2 cm wide, gradually narrowed below into a slender, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme borne by a more or less horizontal peduncle 7-9 cm long, with a few, distant bracts, from low on the ramicaul; flowers medium in size, orange-brown; floral bracts oblique, 7-8 mm long; pedicel 10-12 mm long; ovary purple-brown, 6 mm long, 3 mm wide, round in cross-section; **sepals** glabrous externally, spiculate-pubescent within, the dorsal sepal transversely ovate, 11 mm long, 13 mm wide, connate to the lateral sepals for 6 mm to form a sepaline cup, the angles of union dilated and infolded, the apex obtuse, contracted into a slender, erect, orange-brown tail 2.5 cm long, the lateral sepals obliquely ovate-triangular, 13 mm long, 12 mm wide, connate 9 mm into a transversely oblong lamina with a broad mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** yellow, marked with brown, cartilaginous, oblong, 4.5 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae; **lip** yellow, spathulate, 8-9 mm long, 5 mm wide, the epichile transversely elliptical, concave, 4 mm long, 5 mm wide, the margins denticulate and incurved, the hypochile oblong, 5 mm long, 3.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** cream, semiterete, 5 mm long, with a stout foot 3 mm long.

COLOMBIA: without locality, obtained by Hubein, possibly in the Eastern Cordillera, 1979-1980, flowered in cultivation by C. Branger in Lunteren, The Netherlands, 16 October 1985, *C. Luer 11430* (Holotype: MO).

This species was purchased by Christian Branger from Herr Hubein of Berlin, who had obtained the plant in Colombia in 1979 or 1980, unfortunately without collection data. Most likely the plant originated in the Eastern Cordillera, but it could have been purchased from a collector from another part of the country.

Dracula brangeri is distinguished by the orange-brown, cupped flower with everted margins of the sepals. The petals and lip are not remarkably different from those species related to the *D. houtteana-psittacina* complex. The small, transversely ovate epichile of the lip is concave with involute margins and with a few, low radiating lamellae from a crested, central carina.

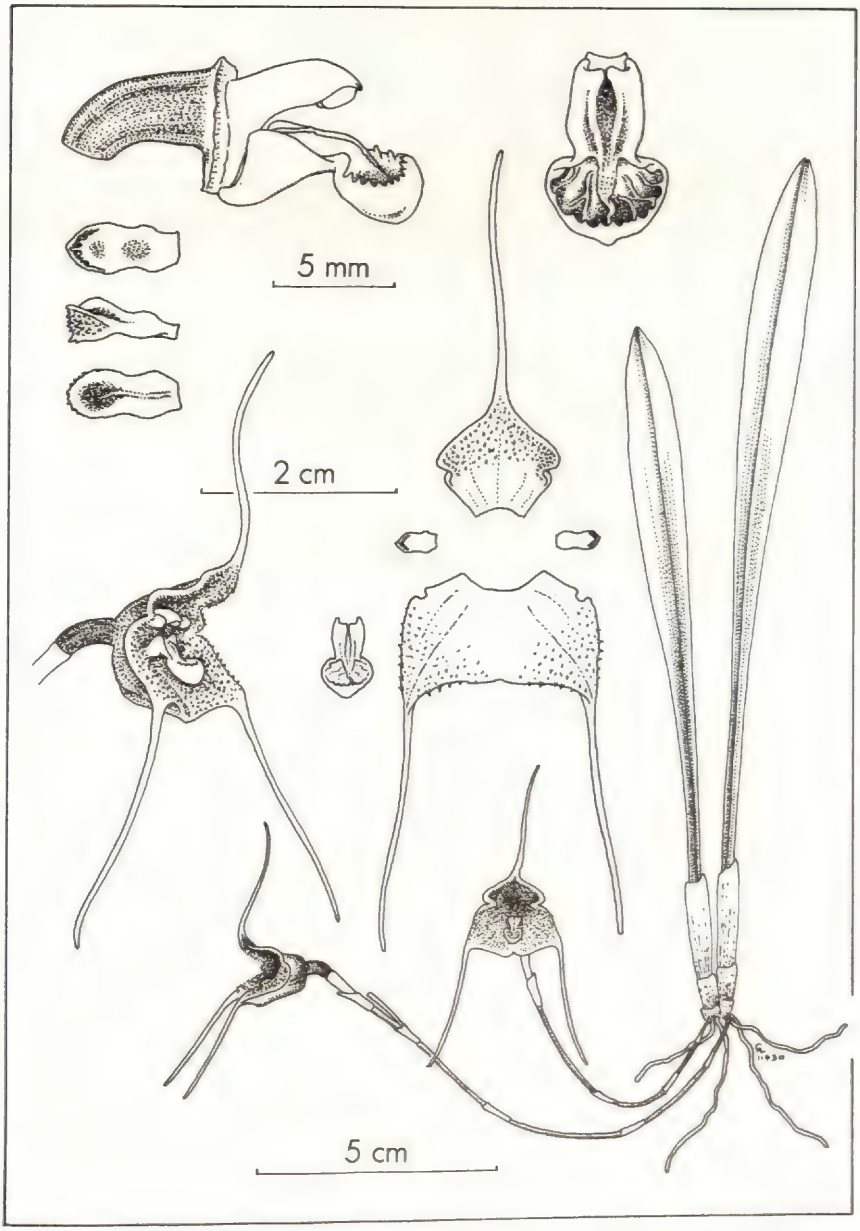


Plate 12. *Dracula brangeri* Luer

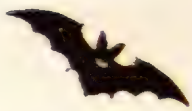
Dracula carcinopsis Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1003, 1989.

Ety.: From the Greek *karkinopsis*, "resembling a crab," referring to the fancied appearance of the flower.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-20 cm long including a petiole 2-3 cm long, the blade broadly elliptical, acute, 3-5 cm wide, narrowed below into the conduplicate petiole. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, erect peduncle 11-15 cm long, with several, distant bracts, from low on the ramicaul; floral bracts 8-10 mm long; pedicels 10-12 mm long; ovary 5 mm long; **sepals** light dull-yellow, suffused with blackish brown at the apices and below the middle, shortly pubescent within, the hairs yellow, the dorsal sepal transversely ovate, 15 mm long, 18 mm wide, connate to the lateral sepals for 5 mm to form a semiclosed, nutant flower with a shallow sepaline cup, the apex obtuse, contracted into a slender, forwardly directed, orange-brown tail ca. 18 cm long, the lateral sepals ovate, oblique, 17 mm long, 14 mm wide, connate 13 mm into a deep, longitudinal mentum, the apices obtuse, contracted into slender dark brown tails ca. 17 mm long; **petals** white, marked with purple-brown, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex rounded, denticulate, bivalvate, papillose between the laminae, the inner lamina recurved, denticulate; **lip** white with the center yellow, thick, spathulate, 8 mm long, 6.5 mm wide, the epichile deflexed, ovoid, concave with erect margins, 5 mm long, 6.5 mm wide, with tall, irregular, radiating lamellae, the hypochile oblong, 3 mm long, 3.5 mm wide, with erect, narrowly obtuse, marginal angles, cleft centrally between lamina each with a small, acute process, the concave base hinged to the column-foot; **column** greenish white, semiterete, 4.5 mm long, the apex minutely bifid, the foot stout, equally long.

COLOMBIA: Dept of Valle del Cauca: Cañon de Garrapatas, alt. 1800-2000 m, collected by J. Miranda, Jr., Oct. 1987, flowered in cultivation at Colombborquídeas, 5 Mar. 1989, *R. Escobar 4004* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 14083.

This intriguing but not-too-handsome species was recently discovered by a professional collector in a remote valley in southern Colombia. The leaves are broad, subplicate and petiolate. The peduncles are shorter than the leaves and stand erect to bear the sinister-appearing flowers, heavily suffused with blackish brown, facing downward. They do not open widely, all three of the short tails curving downward. The concave, ovoid epichile of the lip is filled with numerous, tall, irregular lamellae.



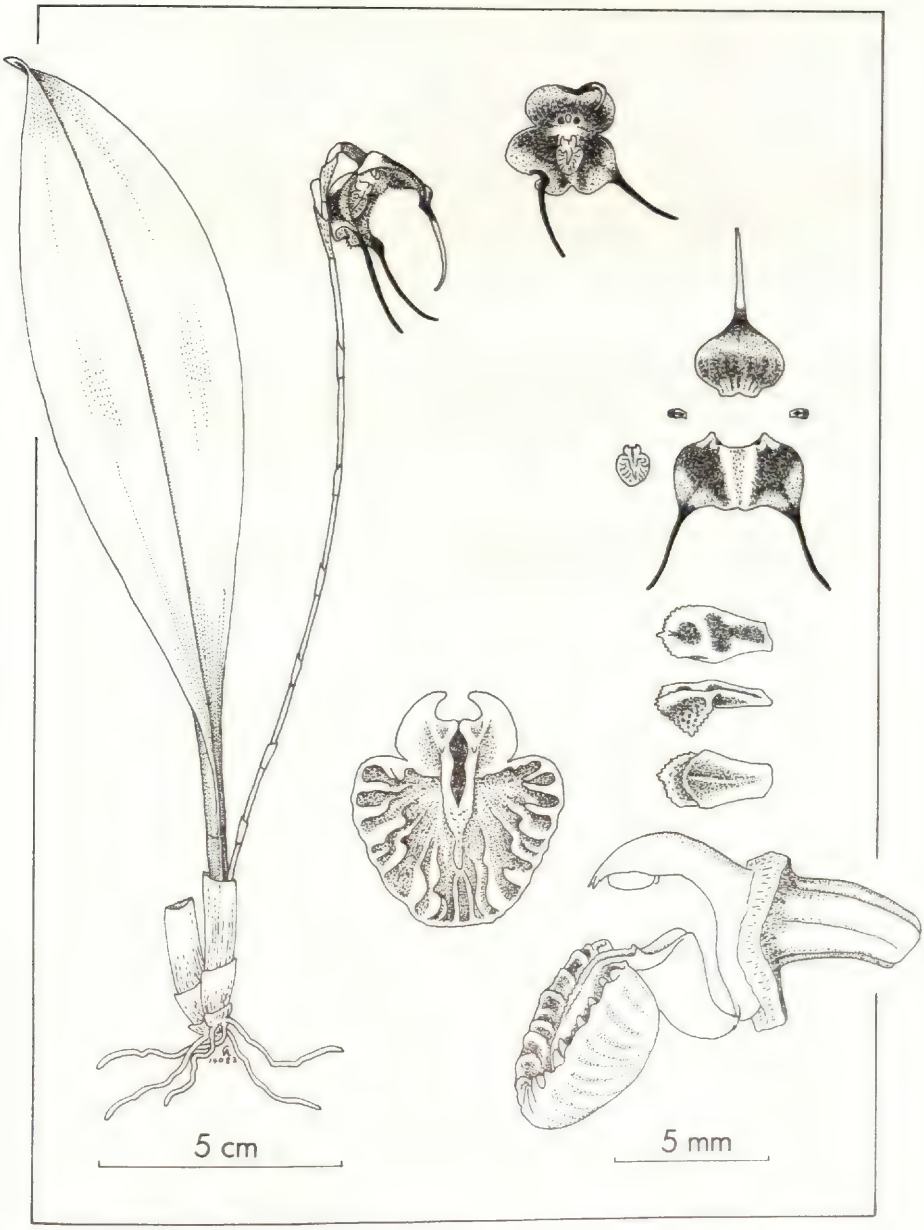


Plate 13. *Dracula carcinopsis* Luer & Escobar

Dracula chestertonii (Rchb.f.) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia chestertonii* Rchb.f., Gard. Chron. 1: 532, 1883.

Ety.: Named in honor of the collector J. H. Chesterton who discovered this species.

Syn.: *Masdevallia macrochila* Regel, Trudy Imp. S.-Petersburgsk. Bot. Sada 11: 307, 1890, et Gartenflora 11: 170, 1891.

Ety.: From the Greek *macrochilos*, "a large lip," referring to the size of the labellum.

Plant medium to large, epiphytic, caespitose; roots slender. Ramicauls stout, erect, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, lightly plicate, carinate, 10-18 cm long including the petiole 2-3 cm long, the blade elliptical, acute, 2-3.5 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a successively few-flowered raceme borne by a slender, purple, horizontal to descending, multibracted peduncle 12-20 cm long, from low on the ramicaul; floral bract tubular, 7-9 mm long; pedicel 10-20 mm long; ovary deep purple, 7 mm long, subverrucose, round in cross-section; **sepals** green, glabrous, diffusely covered within by small, smooth, black warts, the dorsal sepal suborbicular, concave with the sides reflexed, 18 mm long, 17 mm wide expanded, connate to the lateral sepals for 3 mm to form a widely spread flower, the rounded apex abruptly contracted into a slender, erect, red-brown tail 15 mm long, the lateral sepals connate 20 mm into a transversely oblong to suborbicular lamina, 22 mm long, 28 mm wide, the obtuse apices contracted into slender, green, purple spotted tails similar to that of the dorsal sepal; **petals** yellow, marked with black, cartilaginous, oblong-clavate, 4-5 mm long, 1-2.5 mm wide, the apex thickened and cucullate, smooth, black; **lip** pink or salmon, veined in red, transversely elliptical or reniform, the epichile reniform, 15 mm long, 25 mm wide, the sides smooth, rounded and incurved, with numerous, branching, radiating lamellae within, the hypochile oblong, 6 mm long, 3 mm wide, with low, rounded, marginal angles, cleft centrally, the concave base fixed to the column-foot; **column** green, semiterete, 6 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Valle de Cauca: Farallones de Cali, alt. 1800-2200 m, 1879, fide F. C. Lehmann, flowered in cultivation by Messrs. Sander, *J. H. Chesterton* (Holotype: W); western slopes of Farallones de Cali, alt. 1500-2000 m, 30 Dec. 1883, *F. C. Lehmann 3436* (G). Dept. of Antioquia: without locality, *Schmidtchen s.n.* (W). Munic. of Betania, Farallones del Citará, alt. 1800-2000 m, collected by J. M. Serna, 1974, flowered in cultivation by M. & O. Robledo at La Ceja, 12 Oct. 1977, *C. Luer 1999* (SEL). Dept. of Chocó: Carmen de Atrató, La Clara, alt. 1800-2000 m, collected by J. M. Serna, Aug. 1973, flowered in cultivation at Colomborquídeas, 16 Apr. 1988, *C. Luer 13182* (MO); Alto de la Sirena, alt. 2000 m, collected by S. Restrepo, L. Ortiz & P. Ortiz, Dec. 1974, flowered in cultivation by S. Restrepo near El Retiro, Apr. 1975, *R. Escobar s.n.* (JAUM).

This grotesque species of the Western Cordillera of Colombia was first discovered in 1879 by the collector Chesterton, at that time in the employ of the Messrs. Sander of St. Albans, England. According to Consul Lehmann, the locality was west of Cali, not Frontino west of Medellín. Lehmann's water color painting, No. 310, is at Kew.

The green sepals with reflexed sides are covered with small, black warts. The apices of the petals are smooth and cucullate. The huge lip looks like a mushroom with red gills. The scent produced by the lip also is that of a mushroom. In the open greenhouses at Colomborquídeas and La Ceja, where flowers are visited by tiny fruit flies, spontaneous hybrids with characters of *D. chestertonii* occur. *Dracula chestertonii* is related to *D. cutis-bufonis* of the Central Cordillera, but the former has a much larger epichile of a lip that is inflexibly fixed to the column-foot.

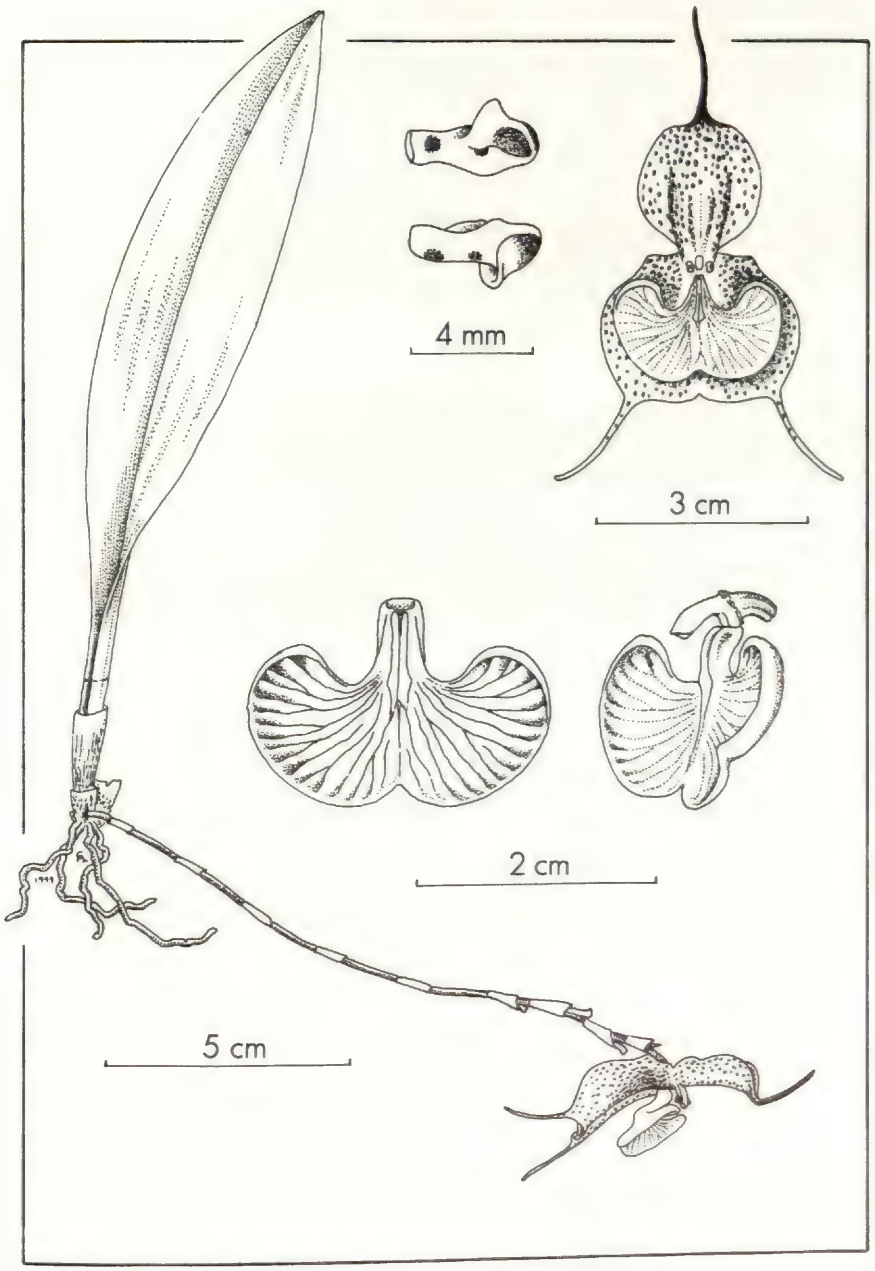


Plate 14. *Dracula chestertonii* (Rchb.f.) Luer

Dracula chimaera (Rchb.f.) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia chimaera* Rchb.f., Gard. Chron. 463, 1872.

Ety.: Named for the mythological, fire breathing monster Chimæra, the offspring of Typhon and Echidna, with the body of a goat, the head of a lion, and the tail of a dragon.

Syn.: *Masdevallia backhousiana* Rchb.f., Gard. Chron. 1: 716, 1879.

Ety.: Named for Messrs. Backhouse of York, England, who imported and cultivated this particularly large-flowered plant.

Syn.: *Masdevallia wallisii* Rchb.f. var. *stupenda* Rchb.f., Gard. Chron. 1: 270, 1885.

Ety.: From the Latin *stupendus*, "stupendous," referring to the magnificent specimen cultivated by Sir Trevor Lawrence.

Syn.: *Masdevallia senilis* Rchb.f. Gard. Chron. 2: 489, 1885.

Ety.: From the Latin *senilis*, "aged," referring to the small form imported among others by Messrs. H. Low & Co.

Syn.: *Masdevallia chimaera* Rchb.f. var. *backhousiana* (Rchb.f.) Veitch, Man. Orchid. Pl. 5: 30, 1889.

Syn.: *Masdevallia chimaera* Rchb.f. var. *senilis* (Rchb.f.) Veitch, Man. Orchid. Pl. 5: 31, 1889.

Syn.: *Dracula senilis* (Rchb.f.) Luer, Selbyana 2: 197, 1978.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, subplicate, carinate, elliptical, acute, 15-26 cm long including an indistinct petiole 3-5 cm long, 4-7.5 cm wide, the base cuneate into the conduplicate, petiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 10 cm long of showy flowers, borne by a stout, horizontal to descending peduncle 20-40 cm long, from low on the ramicaul; floral bract, tubular, 15-18 mm long; pedicel 16-45 mm long; ovary 10 mm long, subverrucose, round in cross-section; **sepals** basic color white, yellow, green, purple, brown, or red-brown, diffusely or irregularly spotted or blotched with purple or brown, coarsely pubescent within, the dorsal sepal ovate, 4-5 cm long, 3-3.5 cm wide, connate to the lateral sepals for 1.2 cm to form a flat, widely spread flower, the apex subacute to obtuse, contracted into a slender, erect, dark purple tail 12-25 cm long, the lateral sepals ovate, oblique, 4-5.5 cm long, 3-3.5 cm wide, connate 2.3-3.2 cm to form a broad, shallow mentum, the acute to subacute apices acuminate into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, elliptical-oblong, 4 mm long, 2.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with yellow, orange, or rose, spathulate, 17-24 mm long, 10-14 mm wide, the epichile oblong-obovoid, concave, 13-20 mm long, 10-14 mm wide, with the apex inflated, 7-10 mm deep, the margins involute and toothed, with 3 primary lamellae and multiple, radiating, branching, elevated veins within, the hypochile oblong, 4-6 mm long, 4-5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, inflexibly attached to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot about as long.

COLOMBIA: Dept. of Chocó?: without locality: 1871, *B. Roezl s.n.* (Holotype: W). Without locality or collector, flowered in cultivation in York, England by *Backhouse s.n.* (K, W, type of *M. backhousiana*); without locality or collector, flowered in cultivation in London, 4 Oct. 1885, by *H. Low & Co., s.n.* (K, W, type of *M. senilis*); without locality, *Shuttleworth s.n.* (W, type of *M. chimaera* var. *stupenda*.) Dept. of Antioquia: without locality, *Patin, s.n.* (W); Briceño, alt. 1700-2200 m, Nov. 1891, *F. C. Lehmann 7255* (K); Munic. of Frontino: alt. 2000 m, 23 Oct. 1884, *F. C. Lehmann 4136* (G); Alto de Cuevas, alt. 1950 m, collected by J. M. Serna, flowered in cultivation by A. Mejia in Medellín, June 1972, *R. Escobar 463* (JAUM); Munic. of Imango: La Granja, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, Feb. 1975, *R. Escobar 1463* (JAUM); Munic. of Yarumal: El Oro, alt. 1750 m, 1975, collected by R. Escobar & W. Teague, flowered in cultivation at La Ceja by M.& O. Robledo, 11 Oct. 1977, *C. Luer 1979* (SEL); road to El Cedro, alt. 1900 m, 17 Mar. 1989, *C. Luer, J. Luer, S. Dalström & W. Teague 14215* (MO); Munic. of Urrao: Pabón, alt. 2100 m, collected by E. Segura, flowered in

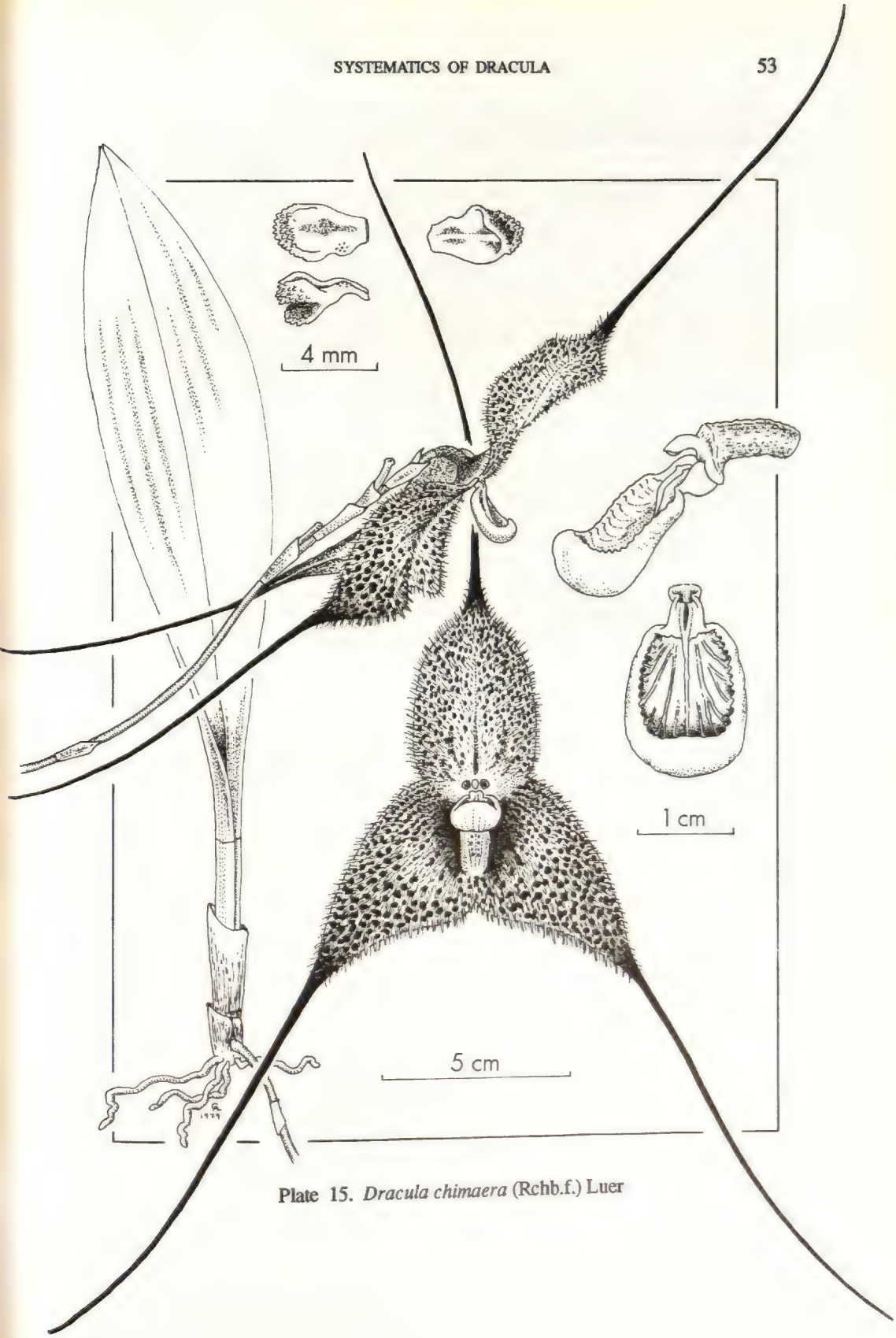


Plate 15. *Dracula chimaera* (Rchb.f.) Luer

cultivation by M. & O. Robledo at La Ceja, Apr. 1975, *R. Escobar 1530* (JAUM); El Queremal, alt. 1900 m, collected by J. Miranda, Jr., flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14084* (MO). Dept. of Cauca: Buena Vista, alt. 2200-2800 m, 23 Apr. 1883, *F. C. Lehmann 2816* (BM); El Tambo, alt. 1300 m, 19 Sept. 1936, *K. von Sneidern 1105* (S). Dept. of Chocó: Munic. of Guangarales, 1979, collected by E. Segura, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13096* (MO). Dept. of Nariño: Túqueres, alt. 1500-2000 m, *F. C. Lehmann 10029* (K). Dept. of Risaralda: Munic. of Pueblo Rico, Alto de La Linea, alt. 2000 m, 15 Oct. 1972, collected by R. Escobar, M. de Robledo et al., flowered in cultivation by M. & O. Robledo at La Ceja, Dec. 1972, *R. Escobar 906* (JAUM); Cerro Tatamá, alt. 2100 m, 1970, collected by J. M. Serna, flowered in cultivation by A. Mejia in El Poblado, Jan. 1975, *R. Escobar 1436* (JAUM). Dept. of Valle del Cauca: "Buenaventura," *E. Klaboch s.n.* (W); west of Cali, alt. 1700-2200 m, Oct. 1883, *F. C. Lehmann 2970* (BM, K, US); same area alt. 2000 m, 19 Nov. 1982, collected by C. Luer & R. Escobar, flowered in cultivation at Colomborquídeas, 29 Apr. 1984, *C. Luer 10393A* (MO); Cordillera of Dagua near San Antonio, alt. 2000 m, 8 Sept. 1881, *F. C. Lehmann 958* (G).

Dracula chimaera was first discovered by Benedict Roezl in March, 1870, probably west of Cali in Cauca in the Western Cordillera, not in the Chocó as originally stated. There was no access to the Chocó at that time. The type-specimen consists of one flower in poor condition. Roezl failed to send living plants to Europe, but other collectors (Wallis, the brothers Klaboch, Patin and Shuttleworth) soon succeeded.

The size, color and spots of the soft, fleshy, coarsely pubescent sepals of *D. chimaera* are markedly variable, a feature noted early in the literature. Reichenbach described several of the forms as species. Veitch reduced all forms and taxa similar to *M. chimaera* to varieties of *M. chimaera*. Today it is still difficult to decide where to draw boundaries between *D. wallisii* and *D. chimaera*.

Dracula chimaera is widely distributed in the Western Cordillera north of Popayán, south of which the Western Cordillera merges with the Central Cordillera. *Dracula wallisii* is widely distributed in the northern Central Cordillera with disjunct stations in southern Colombia. Many authors have considered *D. wallisii* to be the same as, or a variety of *D. chimaera*. Other species (including *D. wallisii*) are probably included in Lehmann's distribution for *M. chimaera* published by Woolward in her monograph.

A feature which sometimes is helpful in separating the two taxa is the shape of the sepals. The sepals of *D. chimaera* are often narrower with the apices more acute than obtuse. The sepals of *D. wallisii* are often broader with the apices more obtuse. The basic color of the sepals of both taxa varies from white, yellow, green, purple to brown. The spots, purple or brown, may be large or small, and diffuse, confluent or essentially absent. Pure yellow forms occur. A "form" from southernmost Colombia with thin streaks instead of blotches (*D. vampira?*) is mentioned by Lehmann. Reichenbach described the lip of *D. chimaera* as "oblongo, saccato." He never described the lip of *D. wallisii*.

After having examined and compared numerous living and dried flowers, we reach the conclusion that *D. chimaera* can be truly separated from *D. wallisii* only by the shape of the lip and the connection of the lip to the column-foot. The second, elusive feature is totally lost in the pressed flower. Crushed and dried flowers of Draculas rarely reveal all the details necessary for a positive diagnosis. In *D. chimaera* the lip is oblong-obovoid with the scaphoid apex deeply inflated and considerably more involute than the sides; the base of the lip is inflexibly attached to the column-foot so that it does not move up or down. In *D. wallisii* the lip is oblong-orbicular with the bowl-like apex simply incurved, usually not more than

the sides; the base of the lip is flexibly hinged to the column-foot so that it is easily moved up or down. Because of these difficulties, some of the citations above could include collections of *D. wallisii*.

Roezl's personal account of his discovery of *Dracula chimaera*, published in the Gardeners' Chronicle of 21 August 1875, page 233, is as follows:

Travelling one day on horseback with a companion in Chocó along a lovely valley, my eye was arrested by a most beautiful object some yards distant, growing near by a rock. I stopped the horses, and the one arm now in my possession making it difficult for me to alight, I asked my companion to do so, and he at once complied with my wishes, and jumping off the horse went and fetched a few of the plants I pointed out to him. He held them up to me, and on my saying "I do not want to see the roots but the flowers," he answered, "There are no flowers on them." "Yes; but turn the plants round -- the flowers are behind your arm." (On the plants) were flower-stalks quite 2 feet long; so long that the flowers were behind him when he held the plants up to me . . . *B. Roezl.*

Comments on *Dracula chimaera* by W. G. Smith which appeared on page 41 in the Gardeners' Chronicle of 9 January 1875 are as follows:

No one who sees *M. Chimæra* for the first time can say it possesses any intrinsic beauty of its own, for its aspect is grotesque and whimsical in the extreme. The prolonged extremities of the sepals are the snakes' tails of the dreadful Chimæra itself, and the abundant hairs are the bristles of its horrible flaming mouth. *M. Chimæra* is like certain sounds, odours, colours, and persons familiar to all thinking people, disagreeable in themselves, yet possessing irresistible hidden attractions to which one is ever bound to return. Who is not familiar with certain themes in the music of Beethoven or Schubert, disagreeable, discordant, and stirring in themselves, yet the very notes one is always wishing to hear again. The same holds good with odours: certain scents (as the aroma of the Truffle) are to many persons actually hateful, yet the odour has such a peculiar fascination when once smelled that it must always be returned to. It is the same amongst tastes, colours, forms, persons, and all other things -- things not in themselves positively ugly and offensive, but deficient in pure beauty and consonance, the deficiency being made up by some irresistible attraction, to which most people are bound to submit. *M. chimæra* will always be esteemed for its peculiarities: the flowers are yellowish with deep reddish brown markings, and densely clad on the interior surface with long hairs; they remind one of acrobats walking on stilts with a balancing pole, and the front view of a flower is not unlike a twisted clown's face distorted with a grimace . . . *W. G. Smith.*

Dracula chiroptera Luer & Malo, Selbyana 2: 367, 1978.

Ety.: Named for Chiroptera, the mammalian order of bats, in fancied allusion to the appearance of the flowers.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, subplicate, carinate, elliptical, acute, 10-29 cm long including an indistinct petiole 3-5 cm long, 2.5-4 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme up to 5 cm long, borne by a stout, horizontal to descending, several-bracted peduncle 12-25 cm long, from low on the ramicaul; floral bract tubular, 6-12 mm long; pedicel 15-30 mm long; ovary 6-9 mm long, subverrucose, round in cross-section; **sepals** light yellow or yellow-green, diffusely spotted with purple-brown or chocolate, shortly pubescent, the dorsal sepal ovate, 27-30 mm long, 19-25 mm wide, connate to the lateral sepals for 6-7 mm to form a flat, widely spread flower, the apex subacute, contracted into a slender, erect, dark purple tail 6-8 (rarely 12) cm long, the lateral sepals ovate, oblique, 30-35 mm long, 21-25 mm wide, connate 15-20 mm to form a broad, shallow mentum, the subacute apices acuminate into slender tails similar to that of the dorsal sepal; **petals** white or ivory, marked with brown, cartilaginous, oblong-obovate, 3.5 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** yellowish white, spathulate, 11-14 mm long, 7.5-8.5 mm wide, rarely larger, the epichile suborbicular, concave, with involute, multidenticulate margins, 8-10 mm long, 7.5-8.5 mm wide, with 3 primary lamellae and multiple, radiating, branching, elevated veins within, the hypochile ovoid, 3-4 mm long, 3-3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, flexibly hinged to the column-foot; **column** yellowish white, stout, semiterete, 5 mm long, with a stout foot equally long.

ECUADOR: Prov. of Pichincha: old road between Quito and Santo Domingo, alt. ca. 1800 m, collected by B. Malo, flowered in cultivation at Tarqui, 22 July 1977, *C. Luer 1759* (Holotype: SEL); above Tandapi, alt. 1600 m, collected by A. Andreetta and A. Hirtz, flowered in cultivation at Pante, 24 May 1988, *C. Luer 13627* (MO).
COLOMBIA: Dept. of Nariño: La Planada Biological Station above Ricaurte, alt. ca. 1750 m, 1979, collected by A. Hirtz, C. Luer et al., flowered in cultivation by Hirtz in Quito, 30 Apr. 1981, *C. Luer 6028* (SEL).

Dracula chiroptera is a variable taxon intermediate between the Colombian *D. wallisii* and the Ecuadorian *D. hirtzii*. It could possibly be treated as a variant of either of the two, but subtle differences seem to maintain its identification. In southwestern Colombia the forms are larger than the more typical forms from farther south in Pichincha.

Dracula chiroptera is identified by the large, widely spread, densely spotted flowers that resemble those of both *D. wallisii* and *D. hirtzii*. Within, the sepals are covered by a dense, short pubescence, neither like the long, coarse pubescence of *D. wallisii*, nor like the essentially glabrous sepals of *D. hirtzii*. The bivalvate petals of all three taxa are too similar to consider. The epichile of the lip of *D. chiroptera* is suborbicular and concave with all the sides involute with multidenticulate margins, very similar to some forms of the lip of *D. wallisii*. The lip of *D. hirtzii* is also suborbicular, but only the apical margin is involute, the sides being only more or less erect.

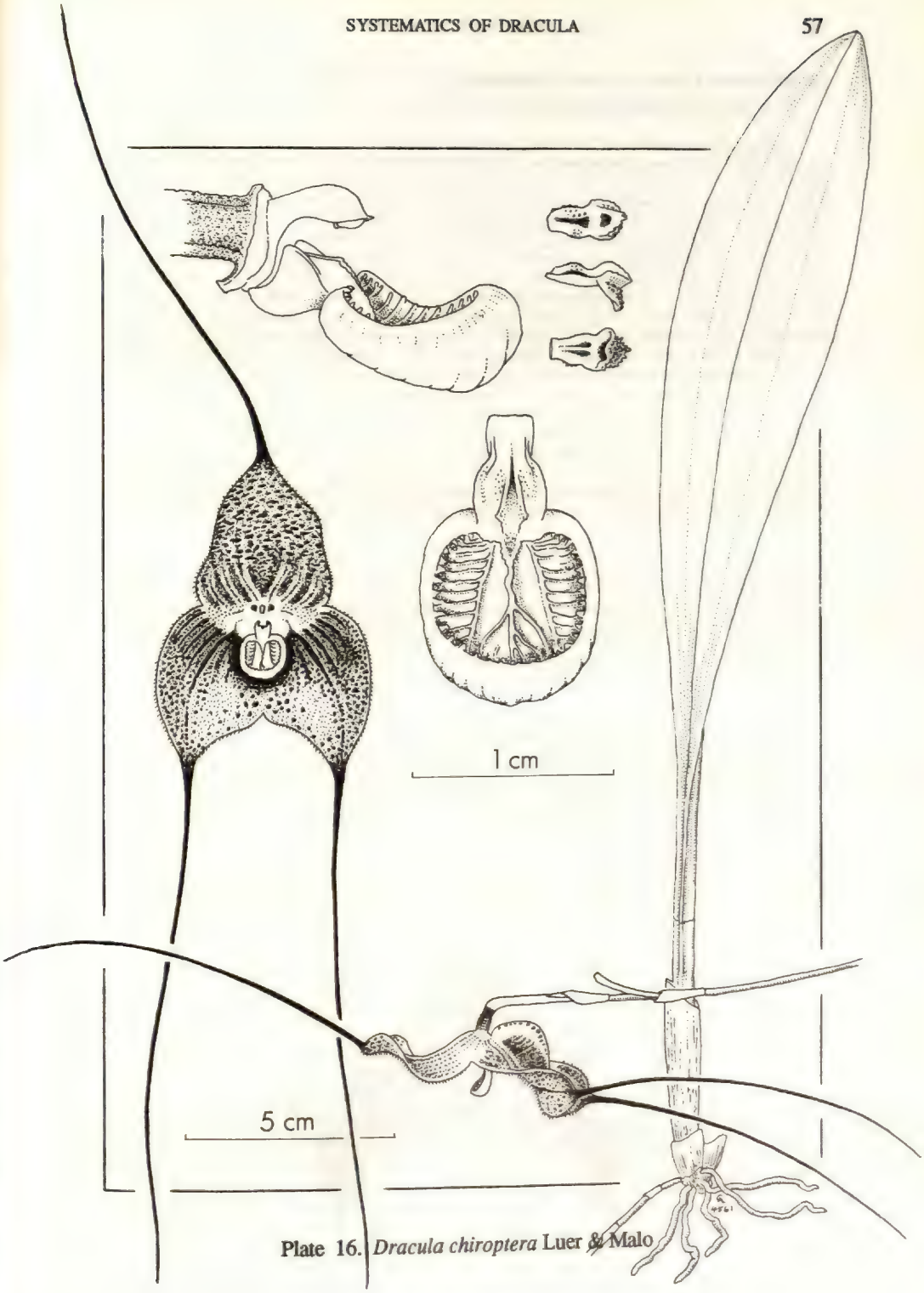


Plate 16. *Dracula chiroptera* Luer & Malo

Dracula circe Luer & Escobar, Orquideología 15: 11, 1981.

Ety.: Named for the beautiful mythological enchantress Circe.

Plant medium-sized to large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 4-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, subplicate, narrowly obovate, acute, 15-27 cm long, 2.8-3.3 cm wide, gradually narrowed below to the conduplicate, indistinctly petiolate base. **Inflorescence** a successively few-flowered raceme, borne by a slender, horizontal, sparsely bracted peduncle 12-16 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 25 mm long; ovary 4-5 mm long, round in cross-section; **sepals** greenish white, lightly dotted with purple and with a long, white pubescence within, the dorsal sepal broadly ovate, 12 mm long, 15 mm wide, connate to the lateral sepals for 6 mm to form a widely expanded flower with a shallow, sepaline cup, the apex rounded, abruptly contracted into an erect, slender, red-purple tail 6-7 cm long, the lateral sepals broadly ovate, oblique, 17 mm long, 16 mm wide, connate 9 mm to form a broad, shallow mentum, the apices obtuse, contracted into tails 5-7 cm long, similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina recurved, rounded; **lip** salmon-colored, spathulate, 7 mm long, 5 mm wide, the epichile ovoid, rounded, 4.5 mm long, 5 mm wide, concave with involute, toothed margins, with 3 straight, parallel lamellae within, the hypochile oblong, 2.5 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: flowered in cultivation by M. & O. Robledo at La Ceja, 20 July 1978, *R. Escobar 1883* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 2935; flowered 9 Apr. 1988, *C. Luer 13094* (MO).

The appearance of this plant in a large, mixed bed of collected plants of *Dracula bella* and *D. chimaera* in the greenhouse of Dr. Oscar Robledo and Martha Posada de Robledo at La Ceja, Colombia, is similar to the appearance of *D. pileus*. Neither *D. circe* nor *D. pileus* has been collected in flower in the wild. Only after the bed of the numerous wild-collected plants had been in cultivation for three years (1975-1978) did plants of *D. circe* and *D. pileus* begin to appear. It is presumed today that these plants, as well as numerous others that have appeared voluntarily in their greenhouses since that time, are spontaneous, garden hybrids.

This plant exhibits qualities that are difficult to attribute to a putative parent. The large, subplicate leaves and long-pubescent sepals suggest *D. gorgona* or *D. wallisii* as a parent. The smaller flower with a "standard" lip could indicate any one of a dozen possibilities.

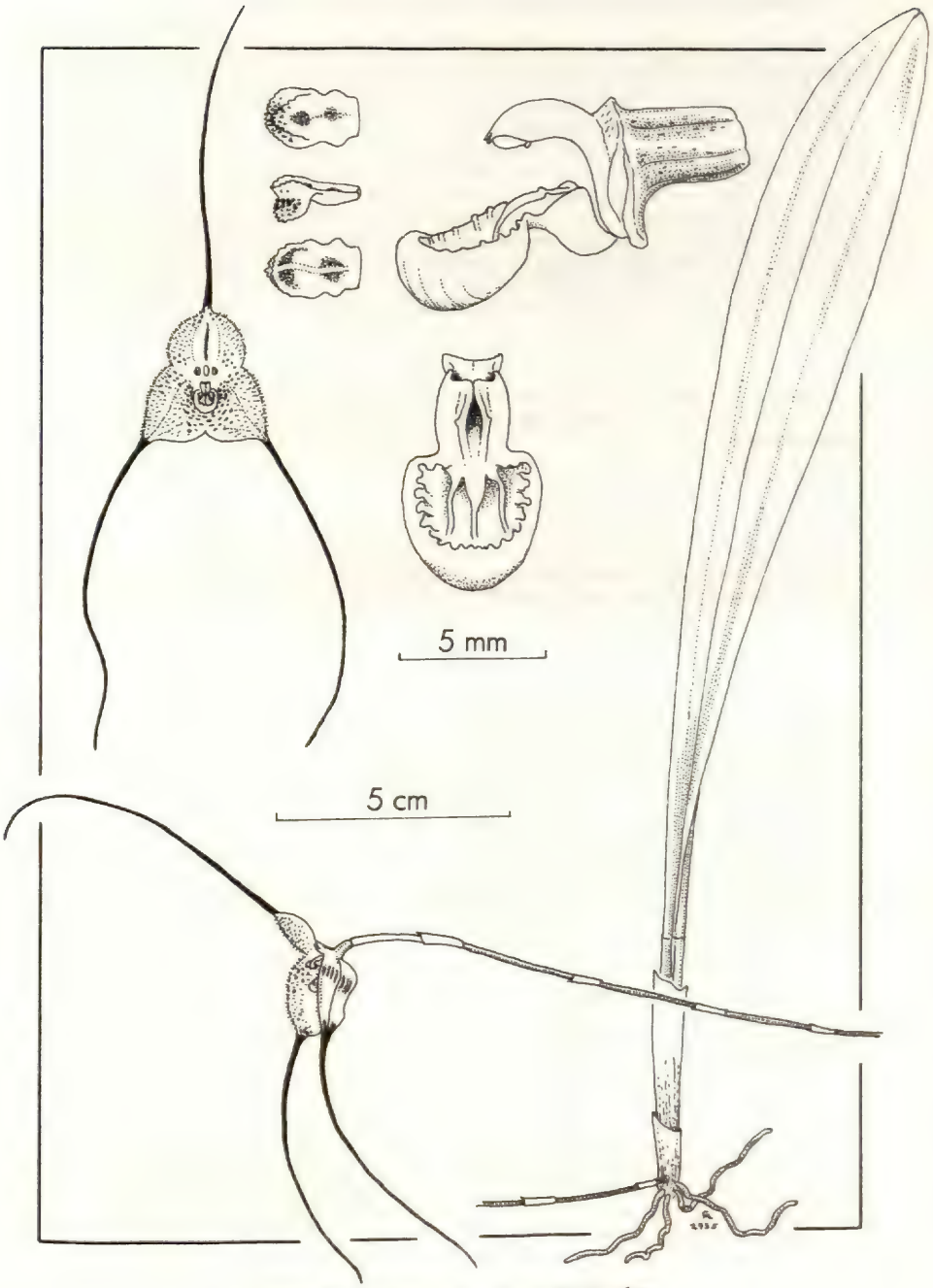


Plate 17. *Dracula circe* Luer & Escobar

Dracula citrina Luer & Escobar, Selbyana 7: 64, 1981

Ety.: From the Latin *citrinus*, "lemon yellow," referring to the color of the flowers.

Plant medium-sized, epiphytic, densely caespitose; roots slender. Ramicauls erect, stout, 2.5-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 18-25 cm long including an indistinct petiole, 1.7-2 cm wide, gradually narrowed below into the conduplicate, petiolate base. **Inflorescence** a single flower, occasionally produced in a loose, successively few-flowered raceme, borne by a sparsely bracted, horizontal to ascending peduncle 7-8 cm long, from low on the ramicaul; floral bract tubular, 7 mm long; pedicel 10-11 mm long; ovary purple, 4 mm long, round in cross-section; **sepals** lemon yellow, yellow-orange toward the base with a few purple dots, covered within by a yellow pubescence, the dorsal sepal transversely ovate, 8 mm long, 11 mm wide, connate to the lateral sepals for 5 mm to form a gaping cup, the apex obtuse, contracted into a slender, erect, dark purple tail 4.5-5 cm long, the lateral sepals ovate, connate 10 mm into a subquadrate lamina 11 mm long, 15 mm wide, with a shallow, orange, purple-dotted mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 2.75 mm long, 1.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina rounded, recurved; **lip** white, suffused with rose, oblong, subpandurate, 3.75 mm long, 1.5 mm wide, the epichile ovate, verrucose, 1.75 mm long, 1.5 mm wide, concave with erect margins, with a tall, thick, central carina extending from the hypochile, the hypochile thick, oblong, 2 mm long, 1.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 3 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Antioquia: Munic. of Urrao, Cerro Plateado between Urrao and Frontino, alt. 2000 m, collected by E. Segura, flowered in cultivation at Colomborquídeas by L. & J. Posada, 1 Nov. 1981, *C. Luer 6545* (Holotype: SEL; Isotype: JAUM); same, flowered in cultivation 17 Apr. 1988, *C. Luer 13203* (MO).

This small-flowered species is known from only the original collection in the northern part of the Western Cordillera of Colombia. It is distinguished by the lemon yellow color of the pubescent sepals with slender tails that may be either yellow or dark purple tails. Although not deeply connate, the sepals do not spread widely, all three tails more or less pointing forward. The epichile of the minute, oblong lip is smaller than the thick hypochile. The warty sides of the distinctive epichile create a narrow cavity which is nearly filled by a single, tall, thick carina.

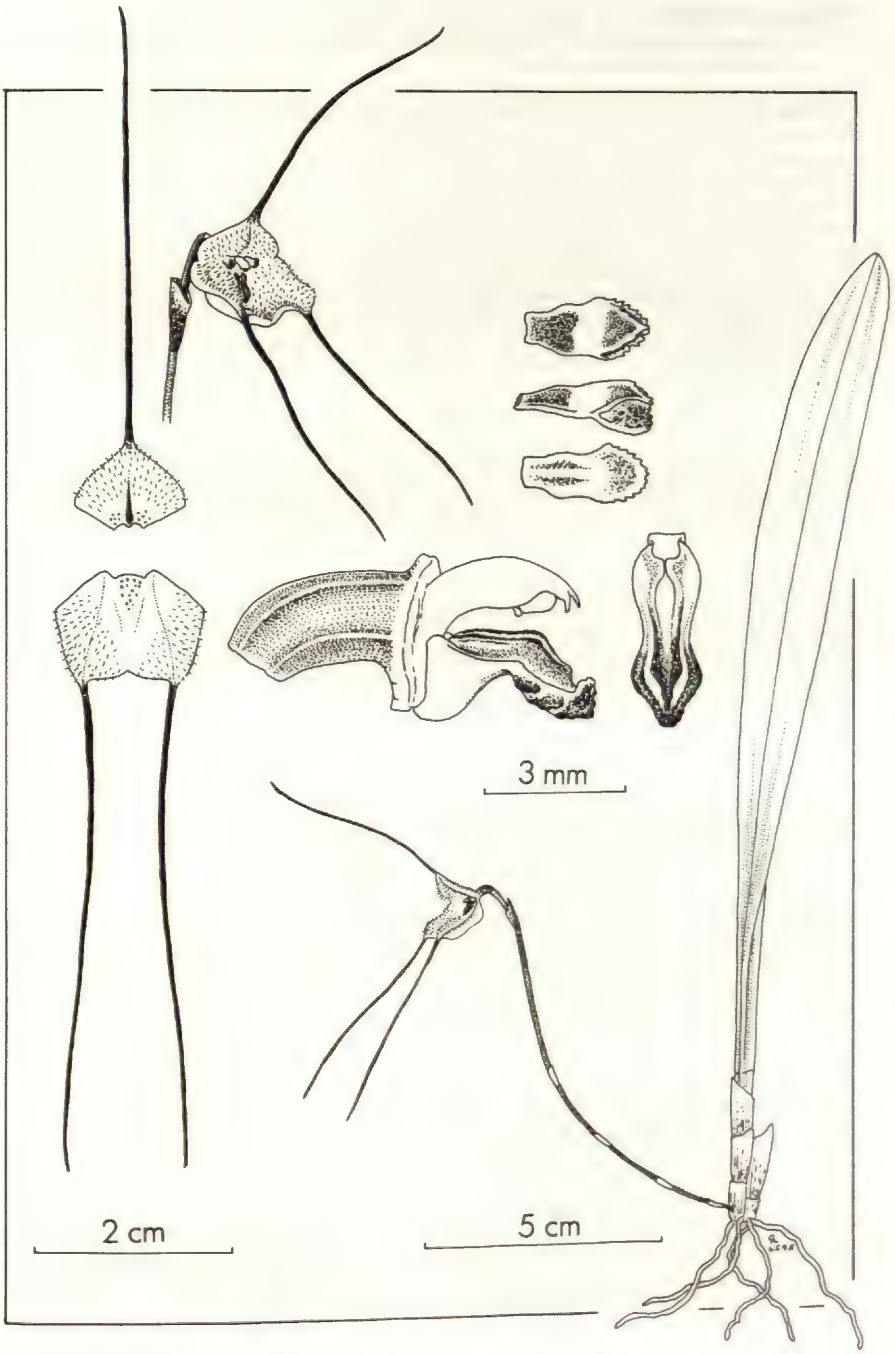


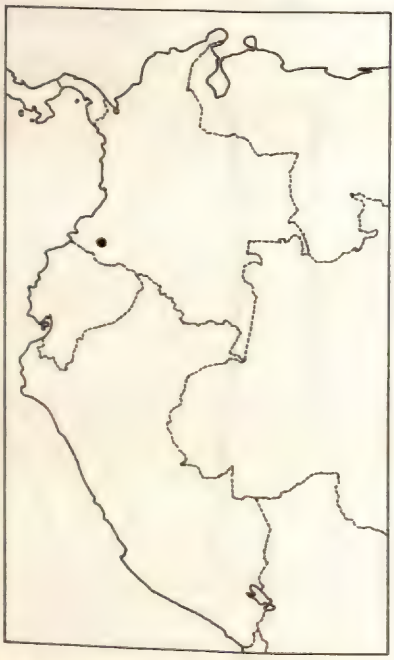
Plate 18. *Dracula citrina* Luer & Escobar

Dracula cochliops Luer & Escobar, Orquideología 13: 119, 1979.

Ety: From the Greek *kochliops*, "the eyes of a snail," in allusion to the protruding petals that suggest the pair of stalked eyes of a snail.

Plant small, epiphytic, the rhizome shortly repent but appearing densely caespitose; roots slender. Ramicauls slender, erect, 1-2 cm long, enclosed by 2-3 short, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 7-10 cm long including an indistinct petiole, 0.7-0.8 cm wide, the base gradually narrowed into the subpetiolate base. **Inflorescence** a lax, successively few-flowered raceme, borne by an erect, sparsely bracted, slender peduncle 8-11 cm long, from low on the ramicaul; floral bract, tubular, 5-7 mm long; pedicel 12-14 mm long; ovary purple, 2.5 mm long, with 6 low, green carinae; **dorsal sepal** diffusely papillose within including the margins, maroon, broadly ovate, 4.5 mm long, 4 mm wide, connate to the lateral sepals for 1 mm to form a gaping flower, the obtuse apex contracted into an erect, slender, maroon tail 3 cm long; **lateral sepals** papillose basally and along the margins, basically white, suffused with purple-brown near the base laterally and becoming lavender above the middle, with orange-brown papillae on orange below the middle medially and becoming white above the middle centrally, broadly falcate and diverging, 10 mm long, 7 mm wide, connate 3.5 mm into a shallow mentum, the obtuse apices produced into long, slender tails nearly 4 cm long, similar to that of the dorsal sepal; **petals** yellow with a red central vein, narrowly panduriform, upcurved, cartilaginous, 6 mm long, 1.3 mm wide, narrowed above the middle to the clavate, minutely papillose apex; **lip** white, marked with rose, obovate-pyriform, 5 mm long, 2.5 mm wide, the epichile indistinctly demarcated, suborbicular, 2.4 mm long, 2.5 mm wide, lightly verrucose externally, shallowly concave, traversed by 3 raised the hypochile oblong, 2.5 mm long, 2 mm wide, with obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 3.5 mm long, with a thick foot 3.5 mm long.

COLOMBIA: Dept. of Putumayo: epiphytic in remnants of cloud forest between San Francisco and "El Pepino," alt. 2200 m, discovered by Janet Kuhn, 2 Aug. 1978, *C. Luer, J. Luer, R. Escobar, J. Kuhn & D. Welisch 3127* (Holotype: JAUM; Isotype: SEL); same area, Feb. 1987, collected by R. Escobar et al., flowered in cultivation at Colomborquídeas, 17 Apr. 1988, *C. Luer 13213* (MO).



This bizarre, little species is known from fragments of a cloud forest in only one valley at a certain altitude in southern Colombia. The first plant discovered was rescued from a cow-pasture by Janet Kuhn in 1978.

Dracula cochliops is without close relatives. It is distinguished by the small, colorful, verrucose, gaping flower borne by an erect peduncle about the same length as the leaves; protruding, elongate, clavate petals; and a small lip indistinctly divided into an epichile and hypochile. The usual splitting of the apex of the petals into a pair of valves interposed with papillae is obscure. The cleavage is faintly visible along the isthmus at the mid portion suggesting that both valves extend onto the bulbous, apical portion.

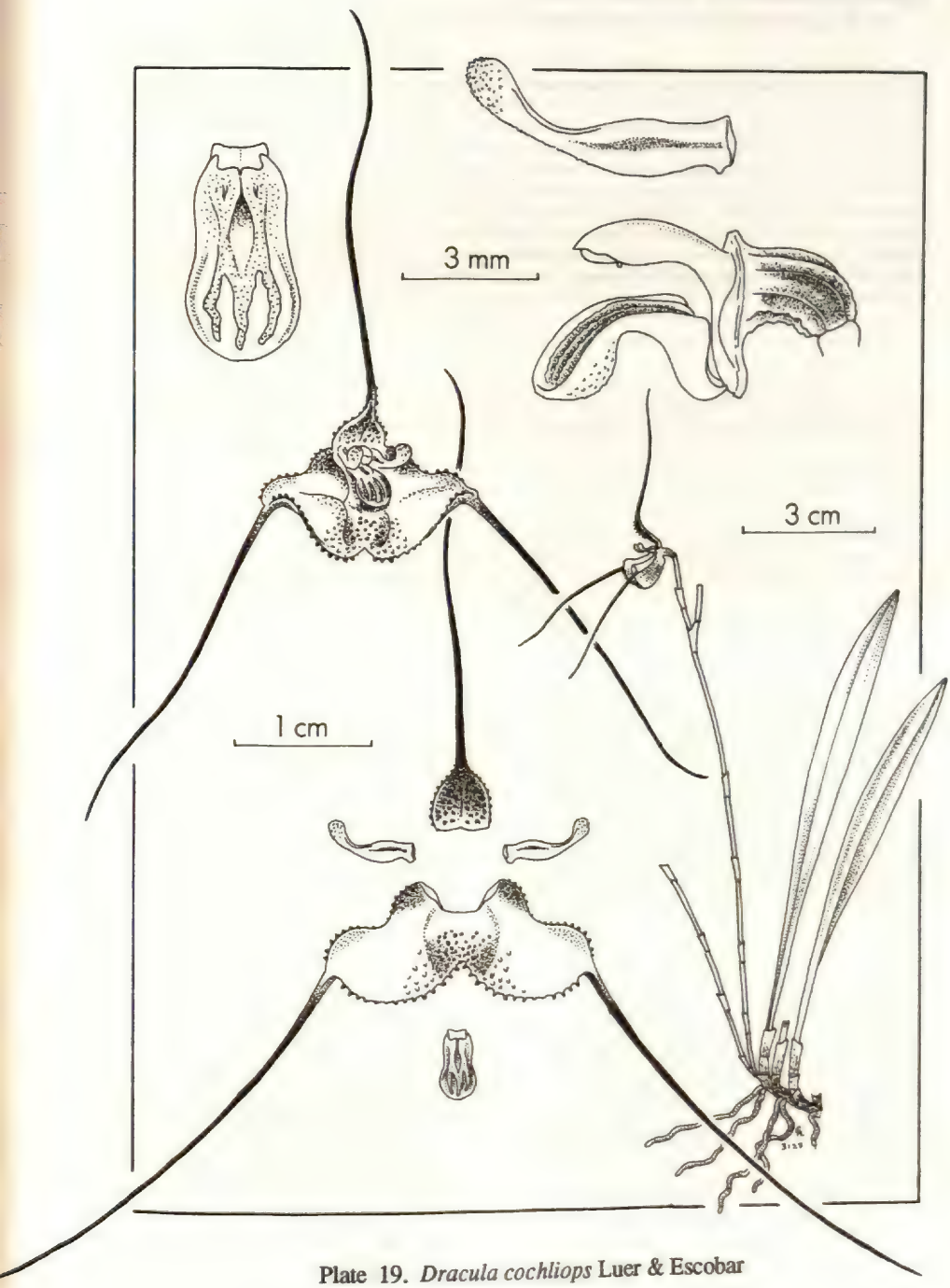


Plate 19. *Dracula cochliops* Luer & Escobar

Dracula cordobae Luer, Selbyana 5: 146, 1979.

Ety.: Named in honor of Clever Cordoba of Guayaquil, Ecuador, who discovered this species.

Plant medium-sized to large, epiphytic, densely caespitose; roots slender. Ramicauls slender, erect, 2.5-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 15-24 cm long including an indistinct petiole 2-4 cm long, 2-4 cm wide, gradually narrowed below into the conduplicate petiole. **Inflorescence** a congested, successively several-flowered raceme, borne by a slender, sparsely bracted, horizontal to descending peduncle 8-19 cm long, from the base of the ramicaul; floral bract tubular, 10 mm long; pedicel 10-12 mm long; ovary 5 mm long, minutely subverrucose, round in cross-section; **sepals** creamy white, suffused and intensely spotted with red-brown on the margins, long-pubescent within, the dorsal sepal ovate, 18 mm long, 15 mm wide, connate to the lateral sepals for 6 mm to form a flat, widely spread flower, the apex acute, contracted into a slender, erect, dark brown tail 4-7 cm long, the lateral sepals ovate, oblique, 25 mm long, 15-18 mm wide, connate 12 mm to form a shallow mentum, the apices acute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, the outer rounded, recurved; **lip** white, spathulate, 13 mm long, 8 mm wide, the epichile suborbicular-elliptical, concave, 9 mm long, 8 mm wide, the margins erect, denticulate, the concavity filled with 3 irregular, branching, elevated veins and numerous secondary veins to either side ending in the marginal teeth, the hypochile oblong, 4 mm long, 2.5 mm wide, with acute, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 4.5 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of El Oro: epiphytic in cloud forest between Piñas and Santa Rosa, alt. 800 m, 19 July 1979, *C. H. Dodson, H. H. Morgan, R. Perry & C. Cordoba 8469* (Holotype: SEL), C. Luer illustr. 4082; same area, alt. 950-1000 m, 20 March 1985, *C. Luer, J. Luer, A. Hirtz & W. Flores 10673* (MO).

This species occurs at a relatively low altitude in wet forests of southwestern Ecuador where it is apparently endemic. It was first discovered by Clever Cordoba while on a collecting trip with Calaway Dodson near Piñas in 1979. *Dracula mopsus* is the only other species of *Dracula* known from this locality. Both *D. mopsus* and *D. woolwardiae* occur nearby at a higher altitude.

The medium-sized flowers of *Dracula cordobae* are characterized by the creamy white color of the sepals with a red-brown border. Sometimes the pigment occurs only on the edge, but it often covers the entire outer halves of the sepals. The sepals are covered within by a long, white pubescence. The snow white epichile of the lip is round and concave with erect, non-involute, multidenticulate margins. It is filled with numerous, radiating lamellae.

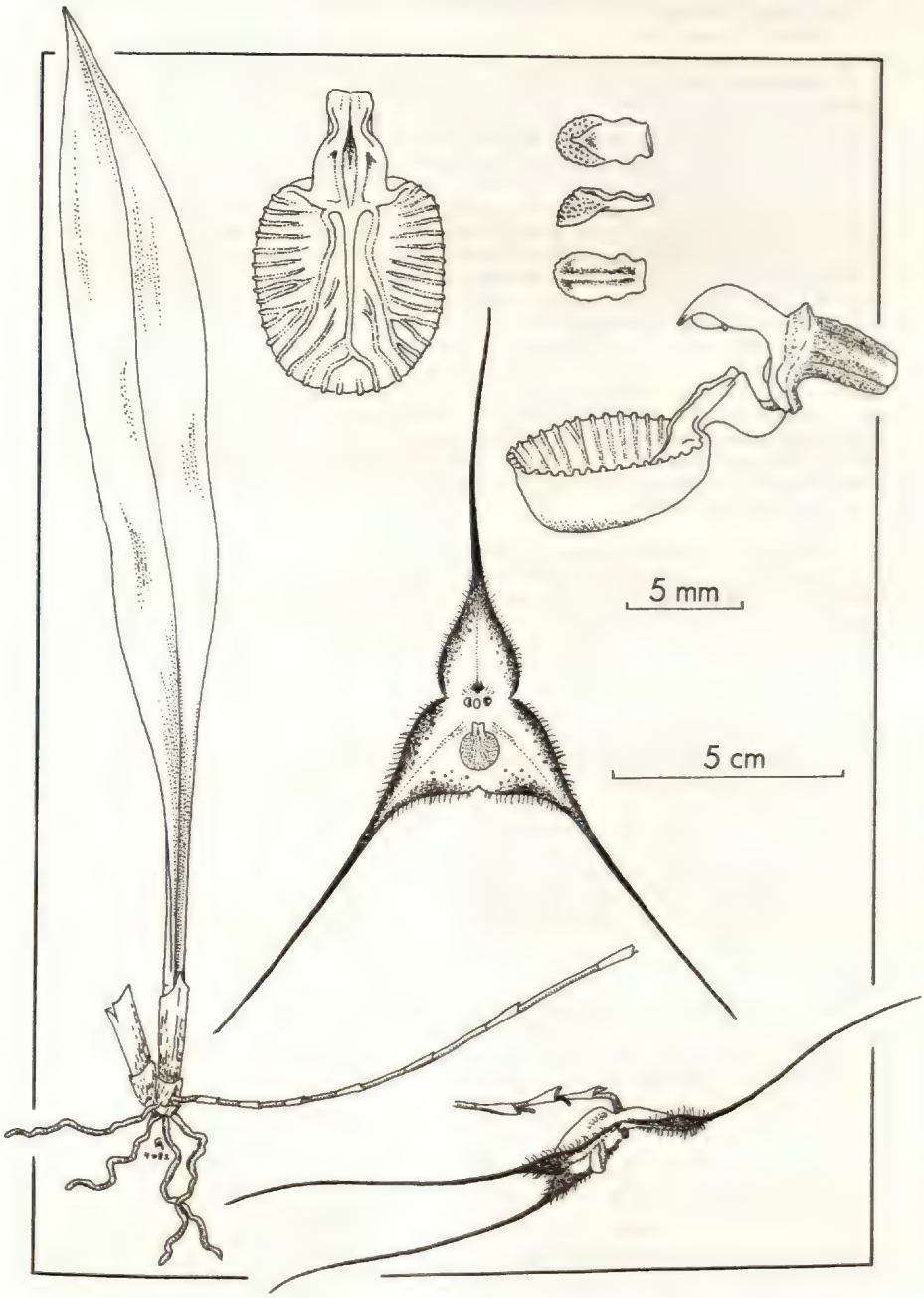


Plate 20. *Dracula cordobae* Luer

Dracula cutis-bufonis Luer & Escobar, Orquideología 13: 13, 1978.

Ety.: From the Latin *cutis-bufonis*, "the skin of a toad," referring to the resemblance of the warty sepals to the skin of a toad.

Plant medium to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 2.5-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, lightly plicate, carinate, 10-15 cm long including the petiole 2-3 cm long, the blade elliptical, acute, 2-2.8 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a successively several-flowered, congested raceme borne by a slender, purple, horizontal to descending, few-bracted peduncle 8-20 cm long, from low on the ramicaul; floral bract tubular, 7-9 mm long; pedicel 8-18 mm long; ovary deep purple, 5 mm long, subverrucose, round in cross-section; **sepals** light greenish to light brownish, glabrous, studded diffusely with multiple, small, purplish warts and spots, the dorsal sepal ovate-subtrapezoid, 15-18 mm long, 18 mm wide, the lateral halves minimally reflexed, connate to the lateral sepals for 6-8 mm to form a widely spread flower, the apex obtuse to subtruncate, abruptly contracted into a slender, erect, dark purple tail 15-20 mm long, the lateral sepals broadly ovate-triangular, 20-23 mm long, 17-20 mm wide, connate 16 mm into a broad, shallow mentum, the obtuse apices contracted into slender, dark purple tails similar to that of the dorsal sepal; **petals** orange, marked with brown, cartilaginous, narrowly oblong-clavate, 5 mm long, 1-2 mm wide, the blunt apex thickened and contorted into a reflexed, subverrucose tuberosity; **lip** dull orange, reniform, the epichile reniform, with broadly rounded lateral lobes, 9-11 mm long, 15-17 mm wide, deflexed 90° on the hypochile, more or less flat and shallowly concave with the sides smooth, rounded and incurved, with numerous, branching, radiating lamellae within, the hypochile oblong, 5 mm long, 2 mm wide, with a tall pair of rounded, longitudinal lamellae, cleft centrally, the concave base flexibly hinged to the column-foot; **column** cream, marked with brown, semiterete, 6 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Antioquia: Munic. of Sonsón, "Quebrada Oscura," between Mesopotamia and Sonsón, alt. 2050 m, Dec. 1973, *R. Escobar, O. Monsalve & J. M. Serna 1377* (Holotype: JAUM), flowered in cultivation by M. & O. Robledo at La Ceja, 12 Oct. 1977, *C. Luer 2000* (SEL); same collection, flowered in cultivation at Colomborquídeas, 16 Apr. 1988, *C. Luer 13183* (MO); Munic. of Cocorná, "Morrón," Río Caldera, alt. 1800-2000 m, May 1974, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 5 Apr. 1978 *R. Escobar s.n.* (JAUM, SEL); Munic. of Argelia, alt. 1900-2000 m, 1975, collector unknown, flowered in cultivation by M. & O. Robledo at La Ceja, July 1976, *R. Escobar s.n.* (JAUM); Munic. of Mesopotamia, La Frontera, alt. 1900 m, Oct. 1985, collected by L. de Posada et al., flowered in cultivation at Colomborquídeas, Nov. 1987, *R. Escobar 3968* (JAUM).

The large-lipped flower of this bizarre species of the Central Cordillera of Colombia is similar to that of *Dracula chestertonii* from the Eastern Cordillera with which it possibly has been identified in the past. The petals of the two species are clavate and bosselated. The lip of *D. cutis-bufonis* is a little smaller with the epichile acutely deflexed on the hypochile, which is flexibly hinged to the column-foot so that the lip oscillates from the center of the pendent flower. The large epichile of the lip of *D. chestertonii* is not deflexed on the hypochile which is rigidly fixed to the column-foot. The multiple, small, purple warts on the light greenish brown sepals of *D. cutis-bufonis* are reminiscent of the skin of a toad. The local name for the species is *piel de sapo* (toad skin).

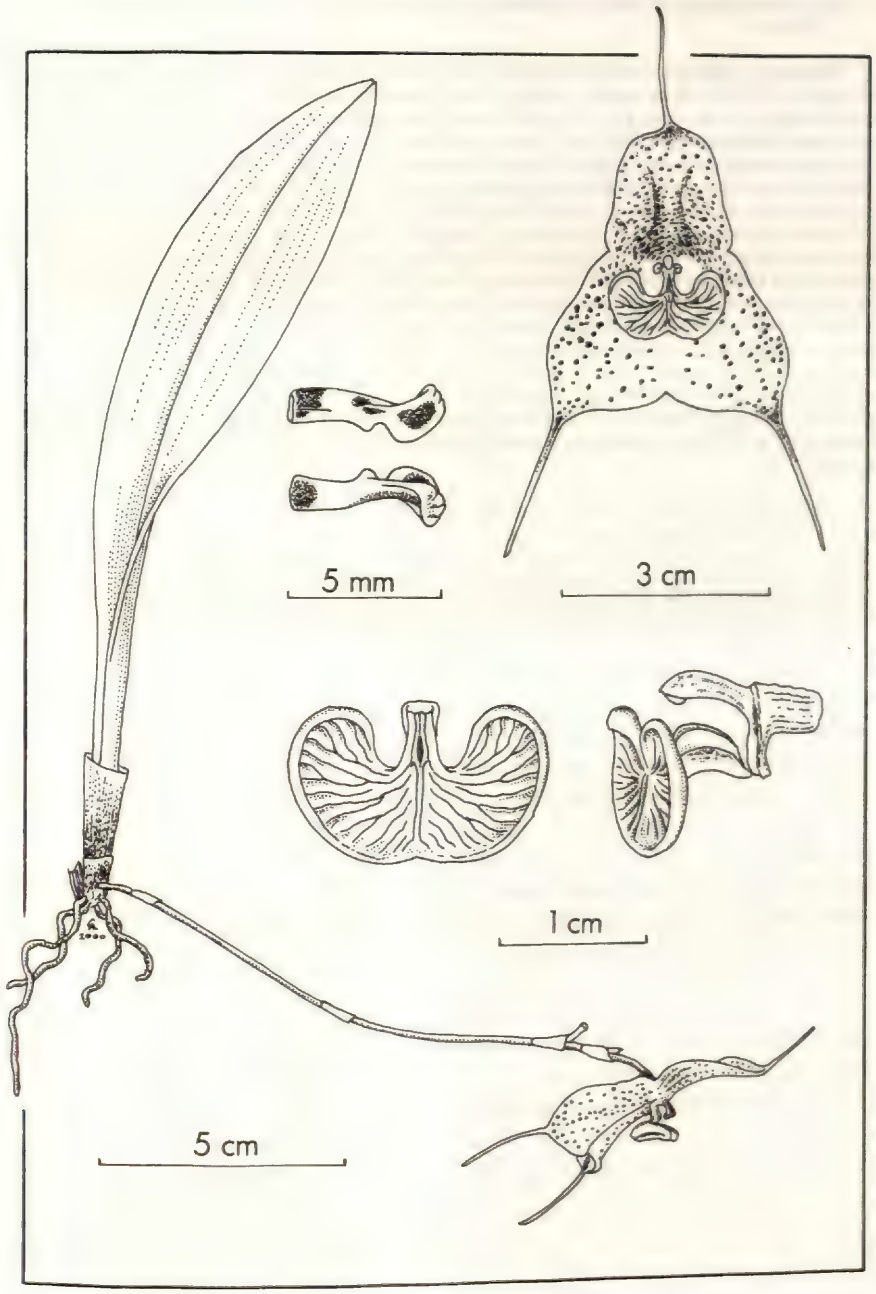


Plate 21. *Dracula cutis-bufonis* Luer & Escobar

Dracula dalessandroi Luer, Amer. Orchid Soc. Bull. 58: 1004, 1989.

Ety.: Named in honor of Dennis D'Alessandro, formerly of Vilcabamba, Ecuador, who discovered this species.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls erect, stout, 2.5-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 12-25 cm long, the blade very narrowly obovate, acute, 1-2.5 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, suberect to horizontal peduncle 7-9 cm long, with 3-4 bracts, from low on the ramicaul; floral bracts 8-10 mm long; pedicels 6-8 mm long; ovary purple-brown, 5 mm long, round in cross-section; **sepals** light gray externally, light yellowish within and dotted with purple-brown, with a short, light yellow pubescence within, the dorsal sepal transversely ovate, 13 mm long, 17 mm wide, connate to the lateral sepals for 8-9 mm to form a sepaline cup, the apex obtuse, contracted into a slender, erect, deep purple tail 6 cm long, the lateral sepals subquadrate, oblique, 16 mm long, 16 mm wide, connate 15 mm into a broad, shallow mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with dark brown, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina acute, denticulate; **lip** white, spathulate, 5.5 mm long, 4 mm wide, the epichile round, more or less convex, 3 mm long, 4 mm wide, with a tall, central carina and several tall, erect, pointed to irregular portions of laminae on either side extending to the flat margin, the hypochile oblong, 2.5 mm long, 2.25 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, 4 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Zamora-Chinchipe: epiphytic in wet forest, Nudo de Sabanilla, alt. 2400 m, collected by D. D'Alessandro, Oct. 1985, flowered in cultivation at Colomborquídeas, Colombia, 6 Apr. 1988, *C. Luer 13050* (Holotype: MO); same locality, 20 Jan. 1986, *S. Dalström & T. Höijer 1079* (MO).

This species is apparently endemic in southeastern Ecuador. It is one of several species of *Dracula* (*D. deltoidea, D. lotax, D. rezekiana, D. simia, D. vespertilio*) that occur in the area which is contiguous with northern Peru, but none of them has yet been discovered in Peru. Species of other pleurothallids, including many species of *Masdevallia*, have been discovered on both sides of the international boundary.

Dracula dalessandroi is distinguished by the long, narrow leaves and a whitish cupped flower shortly pubescent and dotted with purple-brown within. The most distinguishing feature is the small lip with a convex epichile studded with tall points and irregular fragments of lamellae.

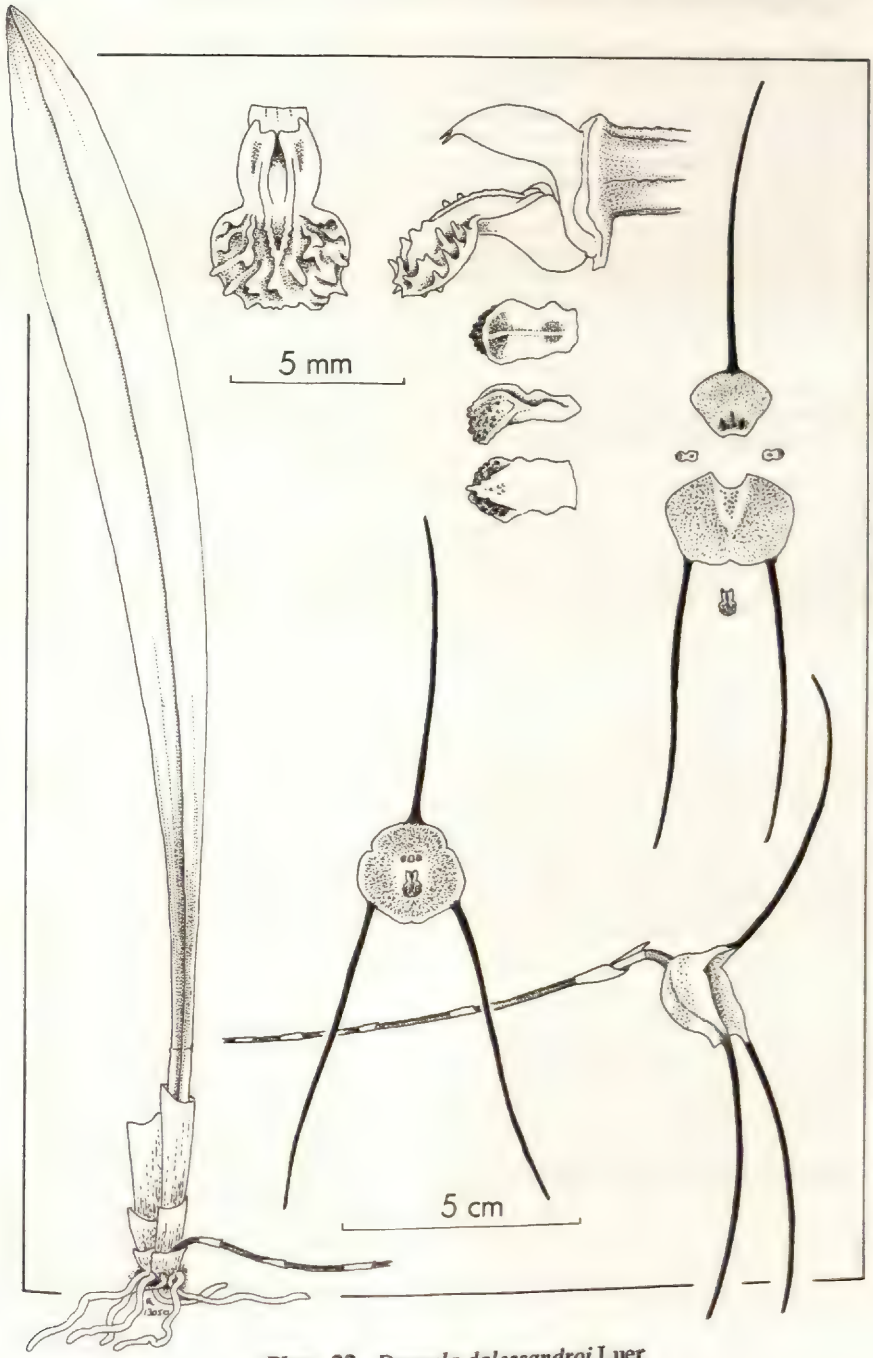


Plate 22. *Dracula dalessandroi* Luer

Dracula dalstroemii Luer, Orchideer 5: sub 10, 1984.

Ety.: Named in honor of Stig Dalström of Falun, Sweden, who discovered this species.

Plant large, epiphytic, shortly ascending to caespitose; roots coarse. Ramicauls erect, stout, 5-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate-linear, acute, 20-27 cm long including an indistinct, conduplicate petiole, 1.5-2.3 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme up to 9 cm long, borne by a stout, more or less horizontal, sparsely bracted peduncle 15-25 cm long, from low on the ramicaul; floral bract tubular, 1.5-2 cm long; pedicel 1.5-2 cm long; ovary 6-7 mm long, round in cross-section; **sepals** creamy white, suffused with light brown toward the base, diffusely pubescent within, the dorsal sepal broadly ovate to suborbicular, 25 mm long, 30 mm wide, connate to the lateral sepals for 11 mm to form a campanulate, sepaline cup, the rounded apex contracted abruptly into a slender, brown tail 7.5 cm long, subtended by a rounded, marginal callus, the lateral sepals ovate, oblique, 35 mm long, 27 mm wide, connate 24 mm into a broad, conical mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong-obovate, 4 mm long, 2.5 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina short, acute, denticulate, the outer lamina rounded; **lip** rose, spathulate, 8.5 mm long, 6 mm wide, the epichile suborbicular, 5.5 mm long, 6 mm wide, concave with erect margins, filled with several tall, incomplete radiating lamellae from a central carina, the hypochile oblong, 3 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, 4.5 mm long, with a stout foot equally long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest between Maldonado and Tulcán, alt. 2500 m, 13 Jan. 1983, *S. Dalström, M. Schrödl et al. 443* (Holotype: SEL), C. Luer illustr. 8706; flowered in cultivation at Colomborquídeas, Dec. 1989, *R. Escobar 4034* (JAUM, MO).

This large species was first collected in Ecuador 1983 in virgin cloud forest along the new road to Maldonado in northwestern Ecuador. This orchid-rich valley already had been found to host several other species of *Dracula* (*D. andreettae, D. gigas, D. hawleyi, D. levii, D. psyche* and *D. radiella*) which had not been known to botanical science prior to 1978.

Dracula dalstroemii is a large species intermediate between *D. gigas* and *D. levii*. Perhaps experimental hybridization will prove *D. dalstroemii* to be a natural hybrid. The large, rosy, rounded sepals are pubescent within, and a rounded, marginal callus subtends the base of the dorsal sepal, suggesting a relationship with the smaller, glabrous, snow white *D. levii*. The petals and lip are similar to those of *D. gigas*.

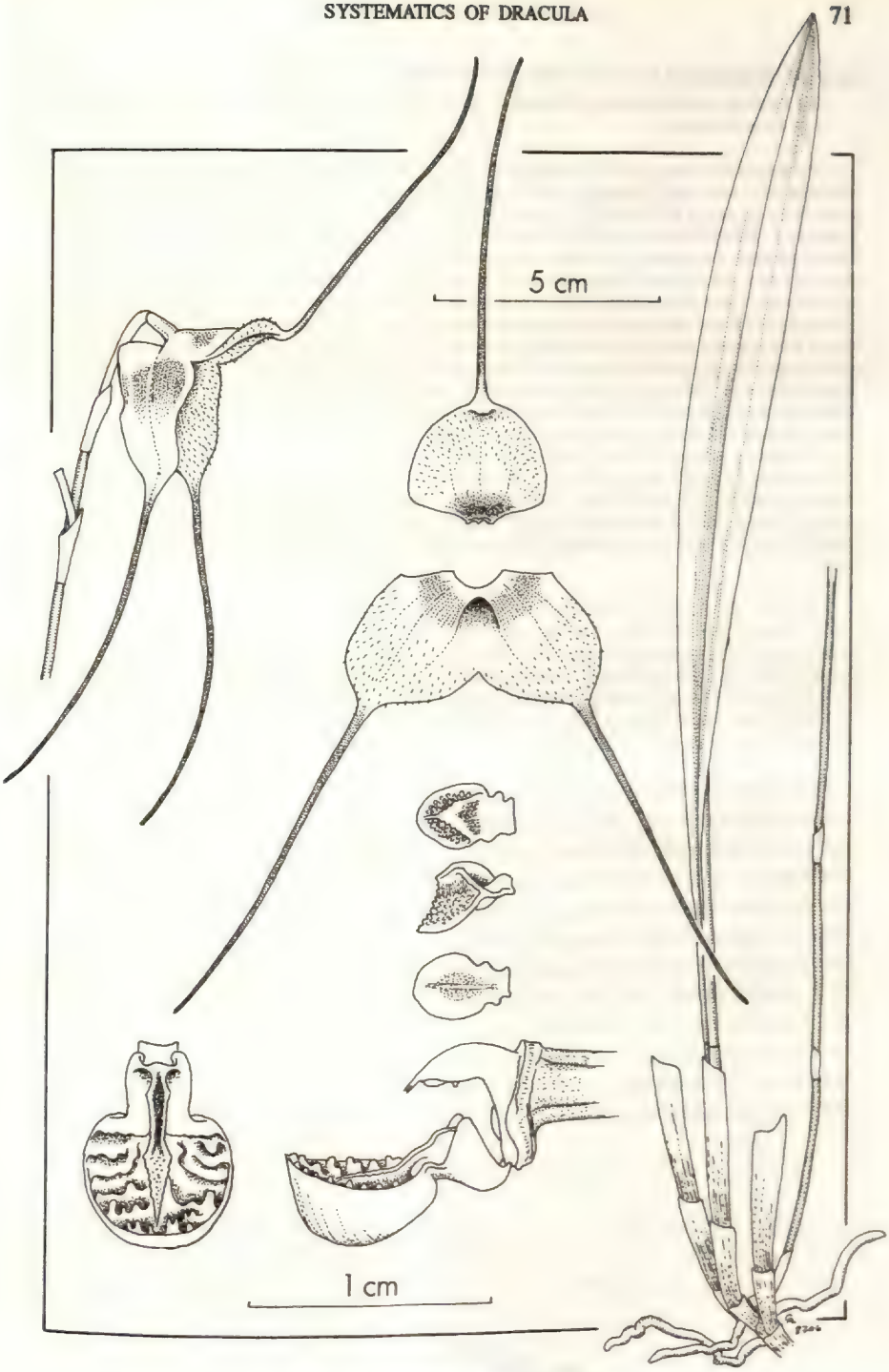


Plate 23. *Dracula dalstroemii* Luer

Dracula decussata Luer & Escobar, Orquideología 13: 18, 1978.

Ety.: From the Latin *decussatus*,"decussate, intersected cross-wise," in reference to the crossed tails of the lateral sepals.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, 1.5-2.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, acute, 8-16 cm long, 1.5-2.5 cm wide, gradually narrowed below to the conduplicate, indistinctly petiolate base. **Inflorescence** a successively few-flowered raceme, borne by a slender, horizontal, sparsely bracted peduncle 3-4 cm long, from low on the ramicaul; floral bract tubular, 6-7 mm long; pedicel 7-10 mm long; ovary subverrucose, 4 mm long, round in cross-section; **sepals** cream-colored, minutely dotted and suffused with red-brown below the middle, densely short-pubescent above the middle, glabrous externally, the dorsal sepal broadly ovate, 9 mm long, 11 mm wide, connate to the lateral sepals for 4 mm to form a widely expanded flower with a shallow, sepaline cup, the apex obtuse, abruptly contracted into an erect, slender, purple-brown tail 4.5-5 cm long, the lateral sepals broadly ovate, oblique, 12 mm long, 12 mm wide, connate 9 mm into a rectangular synsepal with a broad, shallow mentum, the apices obtuse, incurved, contracted into crossing tails 5-7 cm long, similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 3.5 mm long, 1.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina short, acute, denticulate, the outer lamina subdentate, rounded; **lip** white, oblong-obovate, 6 mm long, 2.25 mm wide, the epichile ovate, subacute, 3 mm long, 2.25 mm wide, smooth, shallowly concave, lightly incurved, with 3 straight, parallel lamellae, the hypochile oblong, 3 mm long, 1.75 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 3 mm long, with a stout foot about as long.

COLOMBIA: Dept. of Chocó: Farallones del Citará, 1975, collected by J. Miranda, discovered in the collection of Sra. Amalia Lehmann de Sarria in Popayán, Nov. 1975, flowered in cultivation by M. & O. Robledo at La Ceja, *R. Escobar 1818* (Holotype: JAUM); flowered in cultivation 4 Oct. 1977, *C. Luer 1895* (SEL).

This species remains rare, having been collected but once by the professional collector J. Miranda. The leaves are long and narrow, and the short peduncle descends to bear the flower facing downward with outstretched tails. The apices of the lateral sepals are incurved so that the tails of the lateral sepals cross. Another distinguishing feature is the narrow lip with a smooth, tricarinate epichile without radiating veins. The acute apex curves up from non-incurved, lateral margins.

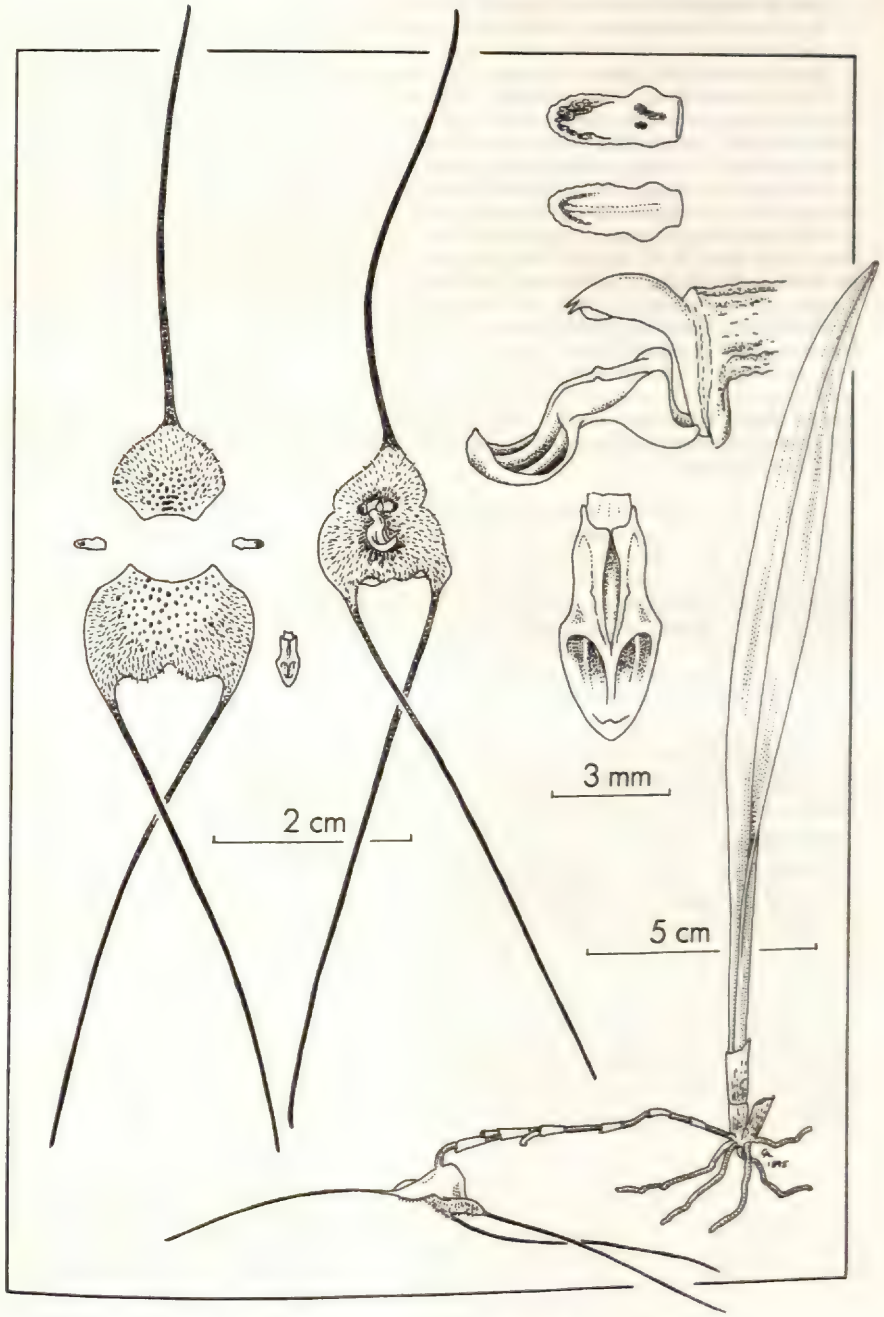


Plate 24. *Dracula decussata* Luer & Escobar

Dracula deltoidea (Luer) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia deltoidea* Luer, Phytologia 39: 194, 1978.

Ety.: From the Latin *deltoideus*, "deltoid, or triangular," in reference to the shape of the flower.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls erect, 3-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 12-17 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.5-2.5 cm wide, gradually narrowed below to the base. **Inflorescence** a single flower borne by a slender, horizontal to descending, sparsely bracted peduncle 8-24 cm long, from low on the ramicaul; floral bract thin, tubular, 8-9 mm long; pedicel 9-10 mm long; ovary purplish, with 6 irregularly serrulate crests, 4 mm long, 3 mm wide; **sepals** greenish white, more or less lightly suffused with orange-brown, covered within by a short, dense pubescence, the dorsal sepal triangular, acute, 11 mm long, 8-11 mm wide, connate to the lateral sepals for 3 mm to form a widely spread flower, the apex contracted into a slender, erect, orange-brown tail 6-15 mm long, the lateral sepals triangular, 13-17 mm long, 10-12 mm wide, connate 8-9 mm into a shallow mentum, the acute apices contracted into slender tails similar to that of the dorsal sepal; **petals** yellow, marked with light brown, cartilaginous, oblong-obovate, 3.5 mm long, 2 mm wide, the apex rounded, bivalvate, densely papillose between the laminae, the inner lamina denticulate; **lip** orange-brown, spathulate-panduriate, 5 mm long, 2.75 mm wide, the epichile transversely elliptical to suborbicular, 2 mm long, 2.75 mm wide, shallowly concave with several, branching, incomplete, low radiating lamellae to the minimally undulate margin, the hypochile ovoid, 3 mm long, 2.25 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow, semiterete, 4 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Zamora-Chinchipe: epiphytic in forest between Loja and Zamora, alt. 2800 m, collected by B. Malo, flowered in cultivation at Tarqui near Cuenca, 16 July 1977, *C. Luer 1713* (Holotype: SEL); same collection, flowered in cultivation by M. & O. Robledo at La Ceja, Colombia, 23 Aug. 1977, *R. Escobar 1812* (JAUM); same area, collected by Angel Andreetta, flowered in cultivation at Paute, Aug. 1990, *A. Hirtz 5020* (MO).

This species was first collected by Benigno Malo in the orchid-rich cloud forests east of Loja in the Oriente of southeastern Ecuador, and cultivated at his finca at Tarqui near Cuenca. It has been found on only a few occasions since that time.

Dracula deltoidea is easily recognized by the small, pale, fleshy, pubescent, triangular flowers with short tails. The color of the sepals varies from ivory to greenish white. The shallow epichile of the small lip is scarcely larger than the hypochile. The ovary is crested.

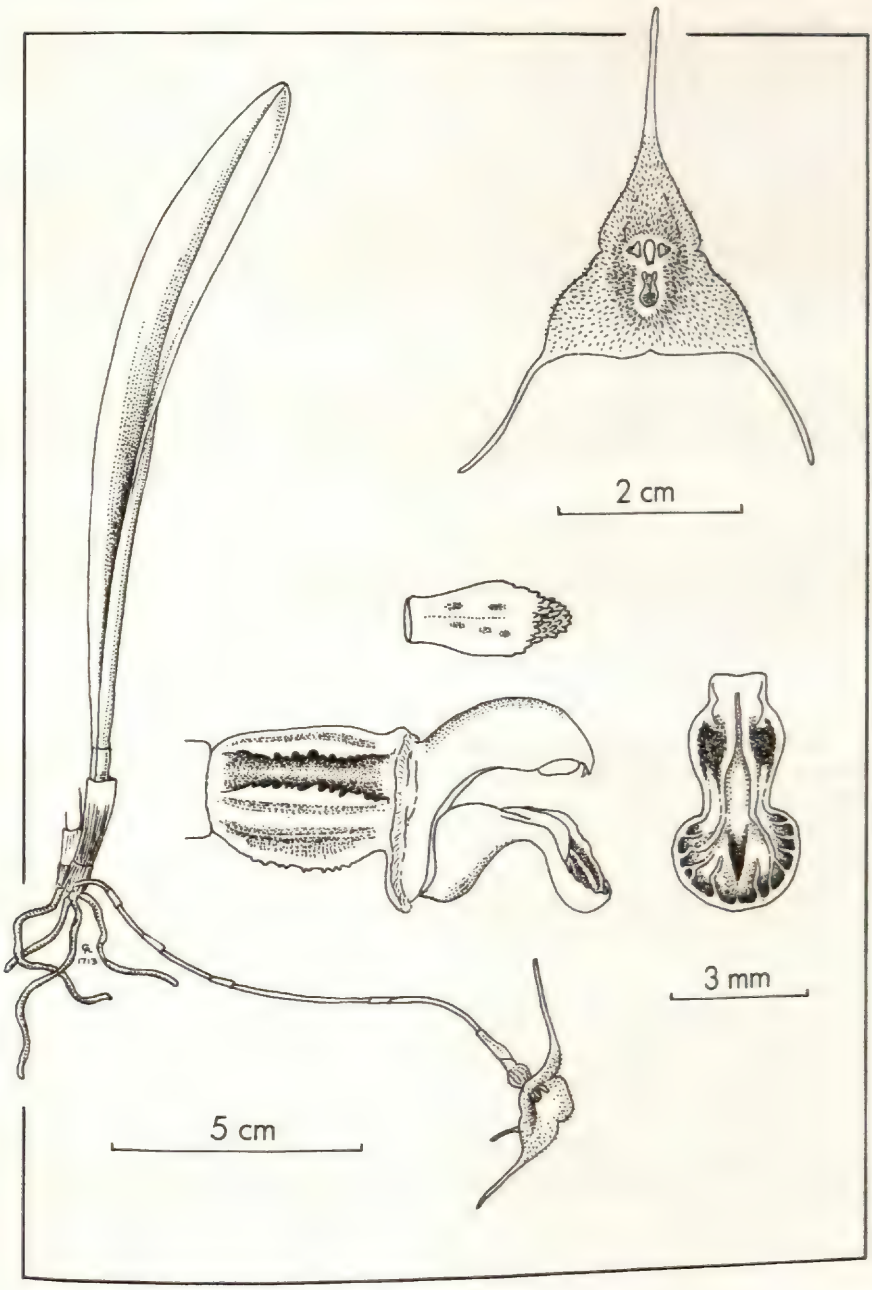


Plate 25. *Dracula deltoidea* (Luer) Luer

Dracula diabola Luer & Escobar, Orquideología 13: 124, 1979.

Ety.: From the Latin *diabolus*, "a devil," in allusion to a fancied appearance of the red flowers.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls stout, erect, 2.5-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 8-20 cm long including an indistinct petiole, 1.8-2 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a stout, purplish, sparsely bracted, horizontal to ascending peduncle 10-14 cm long, from low on the ramicaul; floral bract, tubular, 9-14 mm long; pedicel 14-22 mm long; ovary dark purple, 5 mm long, smooth, round in cross-section; **sepals** dull gray, suffused with purple externally, basically cream within but obscured by diffuse, dense, red-purple or red-brown papillae, many coalescing, sometimes lighter in color near the margins, the dorsal sepal broadly ovate, 12-14 mm long, 12-14 mm wide, connate to the lateral sepals for 7 mm to form a widely spread, shallowly cupped flower, the obtuse apex contracted into a slender, erect, maroon tail 3 cm long, the lateral sepals ovate, oblique, 16-18 mm long, 15-16 mm wide, connate 11 mm into a broad, shallow mentum, the subacute apices contracted into slender, maroon tails similar to that of the dorsal sepal; **petals** cream, marked with purple, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex obtuse, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** red, spathulate, 6 mm long, 4.5 mm wide, the epichile bright red, suborbicular, 3.5 mm long, 4.5 mm wide, nearly flat or very shallowly concave, coursed by protruding, radiating, more or less branching and incomplete lamellae, the central carina thickest and subverrucose, the hypochile oblong, 2.5 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a thick foot 4 mm long.

COLOMBIA: Dept. of Boyacá: epiphytic in cloud forest between Arcabuco and Moniquirá, alt. 2200-2600 m, collected by E. Valencia, Dec. 1977, cultivated at La Ceja by M. & O. Robledo, *R. Escobar 1864* (Holotype: JAUM), flowered in cultivation 20 July 1978, *C. Luer 2931* (SEL); same area, 1987, collected by E. Valencia, flowered in cultivation at Colomborquideas, 10 Apr. 1988, *C. Luer 13144* (MO).

This species is known from only one forested valley in the Eastern Cordillera of Colombia where it is locally abundant. It was first discovered by Eladio Valencia in 1977.

The flowers of *Dracula diabola* appear to be reddish purple-brown or brick-red because of the diffuse and numerous colored tubercles on the inner surfaces of the sepals. The sepals are deeply connate, but the flower is only shallowly cupped. Although small, the bright red epichile of the lip, the tongue of the devil's face, is prominent in the center of the flower. The shallowly concave epichile appears to be convex because the lamellae are raised taller than the margins.

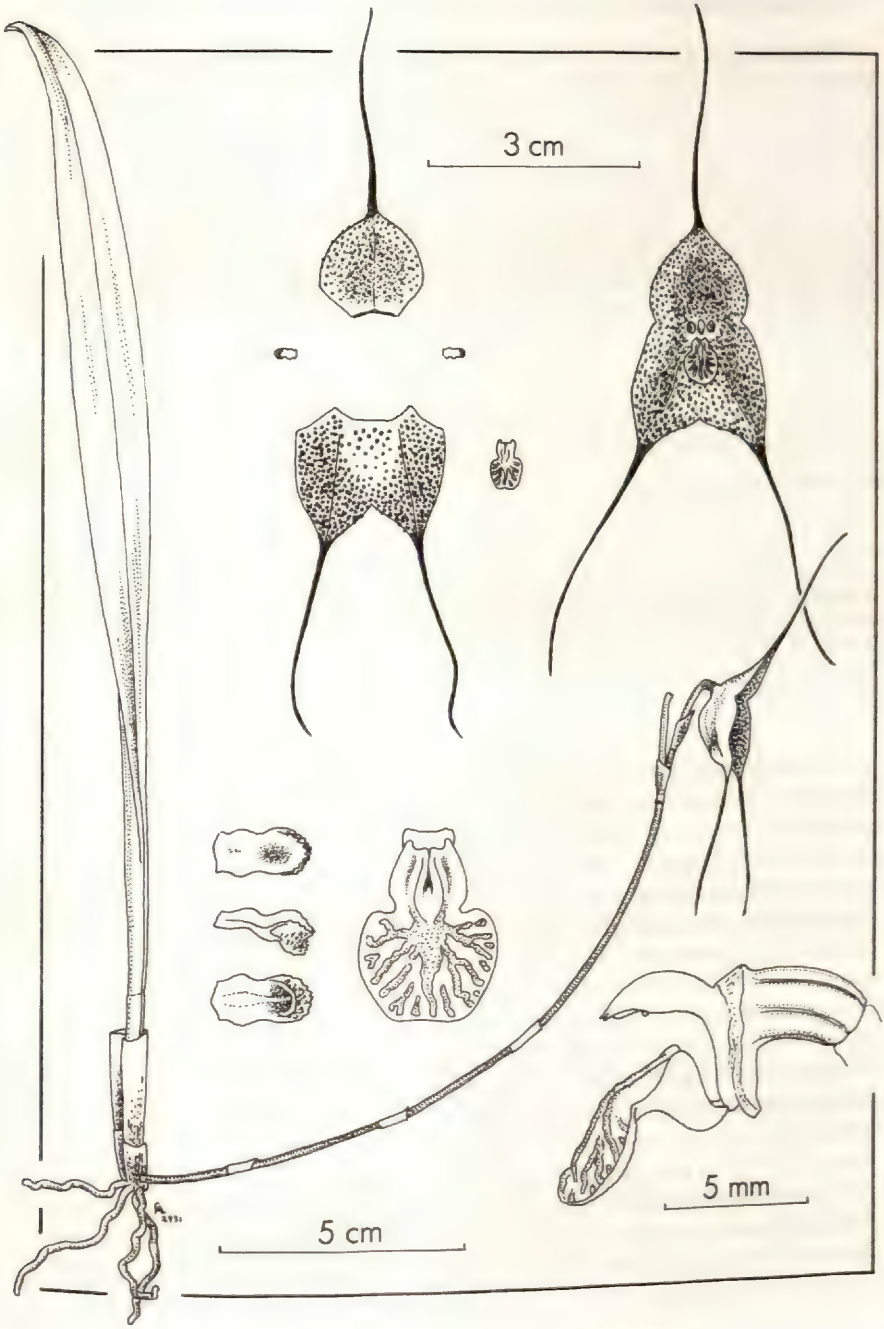


Plate 26. *Dracula diabola* Luer & Escobar

Dracula diana Luer & Escobar, Orquideología 15: 15, 1981.

Ety.: Named for the Roman goddess of the moon, Diana, in allusion to the pale, rounded flowers.

Plant medium-sized to large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, subplicate, narrowly obovate, acute, 10-22 cm long, 3.5-4.5 cm wide, gradually narrowed below to the conduplicate, indistinctly petiolate base. **Inflorescence** a successively few-flowered raceme, borne by a slender, horizontal, sparsely bracted peduncle 8-10 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 13-15 mm long; ovary subverrucose, 5 mm long, round in cross-section; **sepals** yellowish white above the middle, yellow below the middle with dots of light or dark brown more or less coalescing into stripes, shortly pubescent within, the dorsal sepal ovate, 12 mm long, 12 mm wide, connate to the lateral sepals for 5 mm to form a widely expanded flower, the apex obtuse, contracted into an erect, slender, light brown tail 4 cm long, the lateral sepals ovate, oblique, 20 mm long, 14 mm wide, connate 11 mm to form a broad, shallow mentum, the apices obtuse, contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina recurved, rounded; **lip** white, dotted with pink, spathulate, 10.5 mm long, 6 mm wide, the epichile ovate, rounded, 7 mm long, 6 mm wide, shallowly concave without involute margins, with multiple radiating, branching lamellae within, the hypochile oblong, 3.5 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: without collection data, flowered in cultivation by M. & O. Robledo at La Ceja, 22 July 1978, *R. Escobar 1882* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 2942; same collection, flowered 5 May 1979, *R. Escobar 1972* (JAUM). Dept. of Valle del Cauca: Calima, Río Bravo, 1988, collector unknown, flowered in cultivation at La Ceja by M. & O. Robledo, 19 Mar. 1989, *C. Luer 14275* (MO); Río Azul, collected by J. Miranda, 1991, flowered in cultivation at Colomborquídeas, 13 Jan. 1993, *R. Escobar 5264* (MO).

This pretty species was described in 1981 from a plant without any data in the collection of Martha and Oscar Robledo at La Ceja above Medellín. Several years later, spontaneous hybrids began to flower in the baskets and pots of other orchids in the same open greenhouse. Because there was no collection data for the original plant, and because *D. diana* had never been seen in the wild, it was suspected of being another of the numerous, voluntary hybrids. Recently, however, two collections of this species have been made in southern Colombia in the department of Valle del Cauca.

Dracula diana is closely allied to the *D. houtteana-psittacina* complex, but it is best distinguished from them by the broad, subplicate leaves. The greenish white flowers minutely spotted with purple are only slightly larger. The lip is very similar to that of *D. houtteana*.

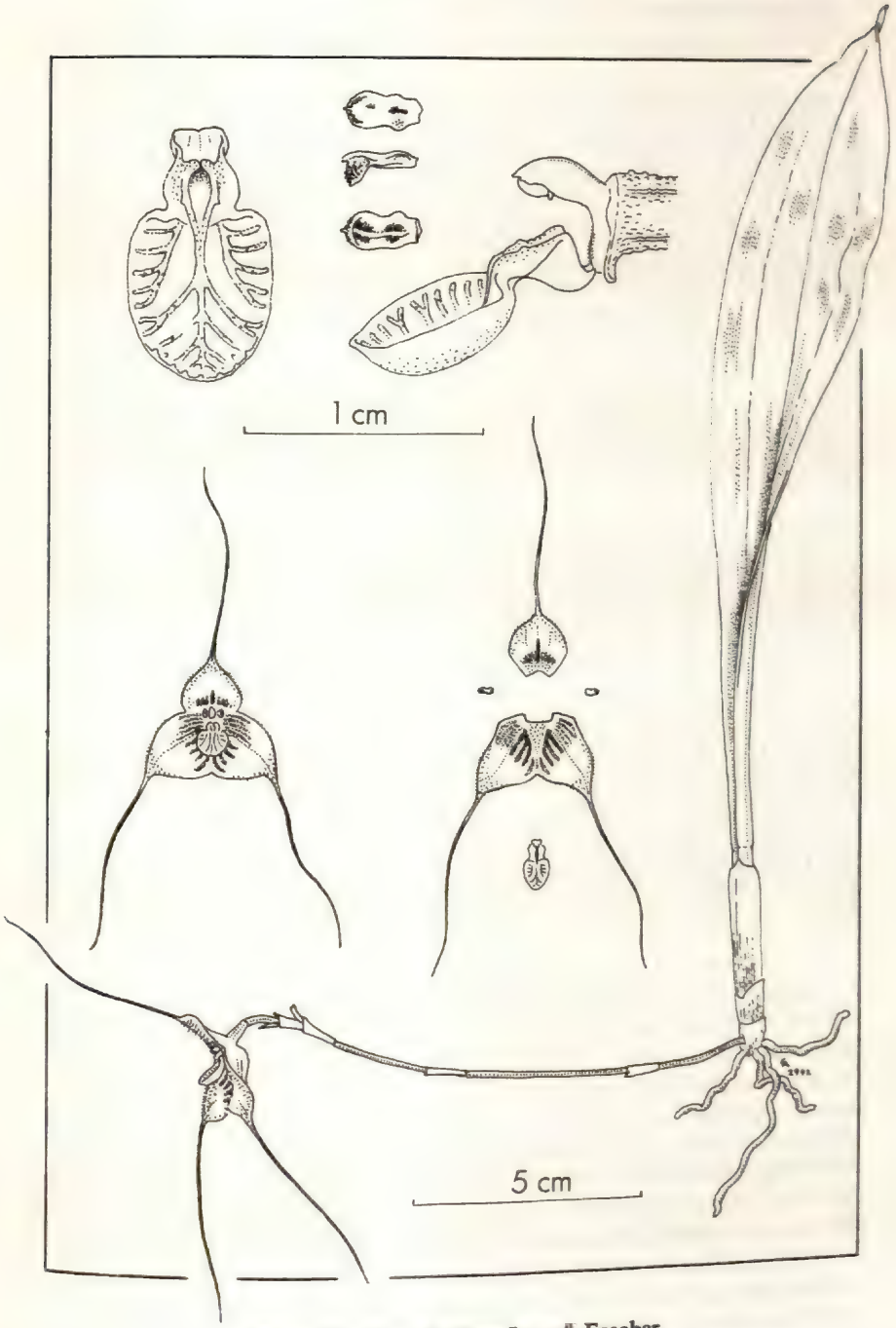


Plate 27. *Dracula diana* Luer & Escobar

Dracula dodsonii (Luer) Luer, Selbyana 2: 194, 1978.

Bas.: *Masdevallia dodsonii* Luer, Selbyana 3: 18, 1976.

Ety.: Named in honor of Dr. Calaway H. Dodson, noted investigator of the flora of Ecuador, who has been acquainted with this species for many years.

Plant medium in size, epiphytic to terrestrial, caespitose to shortly repent; roots slender. Ramicauls stout, erect, 2-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 7-22 cm long including an indistinct petiole 2-6 cm long, the blade narrowly elliptical-obovate, subacute, 1.2-2.8 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a successively few-flowered raceme, borne by an erect, slender, sparsely bracted peduncle 15-30 cm long, from low on the ramicaul; floral bract loose, tubular, 10-20 mm long; pedicel 15-25 mm long; ovary, 4-5 mm long, subverrucose, round in cross-section; **sepals** pale yellowish, suffused and striped with red-purple to brown, the inner surface microscopically glandular-cellular, the dorsal sepal ovate, 20-25 mm long, 10 mm wide, connate to the lateral sepals for 3 mm to form shallow, gaping cup, the free margins minutely erose, the apex acute, contracted into a slender, erect, cream-colored tail 2.5-4 cm long, the lateral sepals ovate, oblique, 15-25 mm long, connate 10-15 mm into a bifid lamina 15 mm wide, the apices acute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with light purple, cartilaginous, oblong, 3 mm long, 1 mm wide, the apex round, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** white, thick, obovate-pyriform, 7.5 mm long, 3.5 mm wide, the epichile suborbicular, smooth, convex, 4 mm long, 3.5 mm wide, deflexed on the hypochile, the hypochile oblong, 3.5 mm long, 2 mm wide, with erect, obtuse, marginal angles, shallowly cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 3 mm long, with a stout foot 2 mm long.

ECUADOR: Prov. of Pichincha: terrestrial on the road embankment above Chiriboga, alt. 2000 m, 26 Oct. 1961, *C. H. Dodson & L. B. Thien 1122* (Holotype: SEL); between Chiriboga and Santo Domingo, El Palmar, alt. 1950 m, 2 Aug. 1955, *E. Asplund 17126* (S); terrestrial on the road embankment between Quito and Santo Domingo, alt. 1600 m, 25 July 1967, *C. H. Dodson, N. H. Williams & R. Adams 3820* (SEL); same area, alt. 1800 m, collected by B. Malo in 1973, flowered in cultivation at Colombor-quideas, 17 Apr. 1988. *C. Luer 13208* (MO); same area, Aug. 1975, *C. Luer, G. Luer & S. Wilhelm 669* (SEL); between San Juan and Chiriboga, alt. 1700-2000 m 23 Nov. 1986, *V. Zak 1303* (MO); Río Cristal, between Lloa and Mindo, alt. 2000 m, 28 Aug. 1986, *A. Hirtz 3019* (MO); Río Cinto, western slope of Pichincha, alt. 1800 m, Dec. 1988, *A. Hirtz 3945* (MO).

The first record known for this species is a collection in 1955 by Erik Asplund. It is found infrequently in a limited distribution on the western slopes of Mt. Pichincha in northcentral Ecuador. Dodson became familiar with it during his early days of botanizing in Ecuador. Twenty years ago it was more often encountered, but now it is rarely seen. It had been found most often growing terrestrially on damp road embankments as an early colonizer, but it is soon crowded out by competing, larger vegetation.

Dracula dodsonii is characterized by the erect peduncles with a slow succession of awkwardly appearing flowers. The flowers always seem weak and more or less tilted with an ungraceful carriage of the tails. The basic color of the gaping sepals is yellowish, but this is obscured by a dull suffusion of purplish brown that forms stripes on the lateral sepals. The lip is white with a smooth, convex, rounded epichile deflexed on a smaller hypochile with a poorly developed cleft.

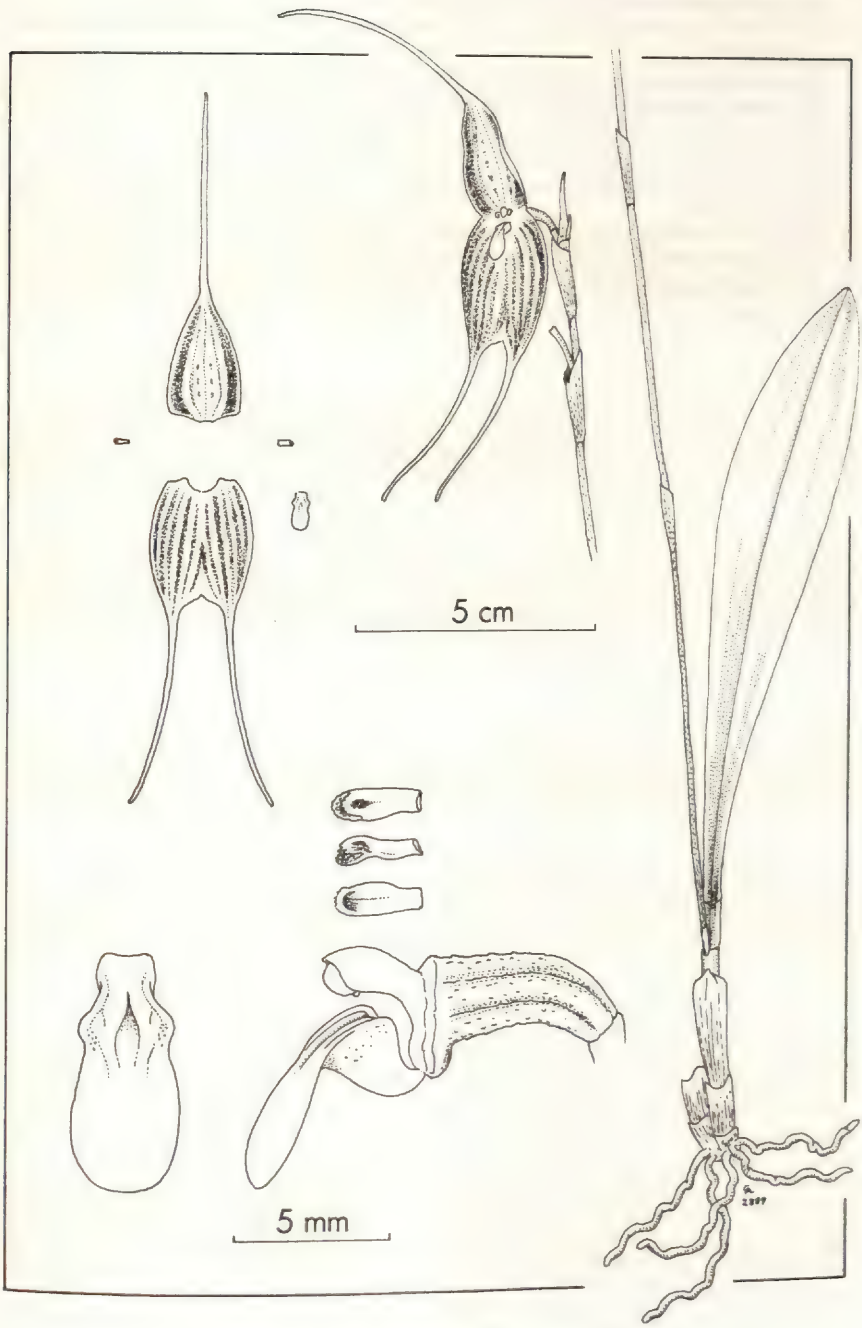


Plate 28. *Dracula dodsonii* (Luer) Luer

Dracula erythrochaete (Rchb.f.) Luer, Selbyana 2: 195, 1978.

Bas.: *Masdevallia erythrochaete* Rchb.f., Gard. Chron. 2: 392, 1882.
Ety.: From the Greek *erythrochaete*, "a long, red bristle, or hair," referring to the slender, red, sepaline tails.

Syn.: *Masdevallia gaskelliana* Rchb.f. Gard. Chron. 2: 294, 1883.
Ety.: Named for Holbrook Gaskell of Liverpool, who cultivated this species.

Syn.: *Masdevallia burbidgeana* Rolfe, Orchid Rev. 1: 265, 1893.
Ety.: Named for F.W. Burbidge, curator of the Trinity College Garden, Dublin.

Syn.: *Masdevallia erythrochaete* var. *gaskelliana* (Rchb.f.) Woolward, Monogr. Genus *Masdevallia* sub t. 63, 1896.
Syn.: *Dracula burbidgeana* (Rolfe) Luer, Selbyana 2: 194, 1978.
Syn.: *Dracula gaskelliana* (Rchb.f.) Luer, Selbyana 2: 195, 1978.

Syn.: *Dracula leonum* Luer, Phytologia 44: 164, 1979.
Ety.: Named for Mr. and Mrs. Chesley Lyon who submitted the specimen to the Orchid Identification Center at SEL.

Plant small to medium in size, epiphytic, densely caespitose; roots slender. **Ramicauls** slender, erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-obovate, acute, 8-23 cm long including an indistinct petiole, 1-2.5 cm wide, the base narrowly cuneate into the conduplicate base. **Inflorescence** a loose, successively 1- to 4-flowered raceme up to 5 cm long, borne by a slender, ascending, horizontal to descending peduncle 10-20 cm long, from low on the ramicaul; floral bract, tubular, 7-10 mm long; pedicel 8-18 mm long; ovary 4-6 mm long, lightly subverrucose, round in cross-section; **sepals** white to pale yellow, diffusely dotted in purple or brown, often suffused with red, purple, or brown below the middle, pubescent within, the dorsal sepal transversely ovate, 10-14 mm long, 11-15 mm wide, connate to the lateral sepals for 6 mm to form a cupped or shallowly cupped flower, the apex obtuse, contracted into a slender, erect, dark red-purple or brownish tail 3-7 cm long, the lateral sepals ovate, oblique, 12-17 mm long, 10-14 mm wide, connate 10-13 mm to form a broad, shallow mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** white or ivory, marked with purple or brown, cartilaginous, oblong, 3-4 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina obtuse, recurved; **lip** white, often suffused with rose or light brown, spathulate, 6.5-8 mm long, 4-5 mm wide, the epichile suborbicular, concave, 4-5 mm long, 4-5 mm wide, with the margins involute and many-toothed, with 3 primary lamellae and a few, radiating, elevated veins near the margin, the hypochile oblong, 3 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot nearly as long.

COSTA RICA: without locality or collector, imported and flowered in cultivation by *F. Sander s.n.* (Holotype: W, Isotype: K); without locality or collector, imported by F. Sander, flowered in cultivation by *H. Gaskell s.n.* (K, W, type of *M. gaskelliana*); without collection data, imported by F. Sander, flowered in cultivation at Glasnevin by *F. W. Moore s.n.* (K, type of *M. burbidgeana*); without locality, *R. Pfau 226* (W). Prov. of. Alajuela: Candelaria, El Salvas, alt. 2000 m, 25 Sept. 1925, *A. Alfaro 130* (US); between San Ramón and Balsa, alt. 1100 m, 10 Sept. 1979, *W. D. Stevens 14086* (MO). Prov. of Cartago: Río Macho, alt. 1500 m, between San Jeronimo and El Rodeo de Coronado, 18 Dec. 1960, *Cl. Horich 59-102-17* (MO). Prov. of San José: epiphytic in cloud forest near San Cristobal, alt. 1800 m, 22 June 1981, *C. Luer, A. Luer & L. D. Gómez 6377* (SEL). Erroneous locality, (type of *D. leonum*: SEL). PANAMA: Prov. of Boca del Toro: Cordillera de Talamanca, 1 Mar. 1984, *G. Davidse, L. D. Gómez et al. 25135* (MO). Prov. of Chiriquí: above Boquete, alt. 1800-2100 m, 18 Feb. 1918, *E. P. Killip 3566* (US); epiphytic in scrubby forest on Cerro Hornito, alt. 1700 m, 15 Dec. 1976, *C. Luer, A. Luer, R. L. Dressler, N. H. Williams & F L Stevenson 1383* (SEL); Cerro Punta, collected by P. Martinez, July 1990, flowered in cultivation, 15 Mar. 1991 by *A. Maduro s.n.* (MO).

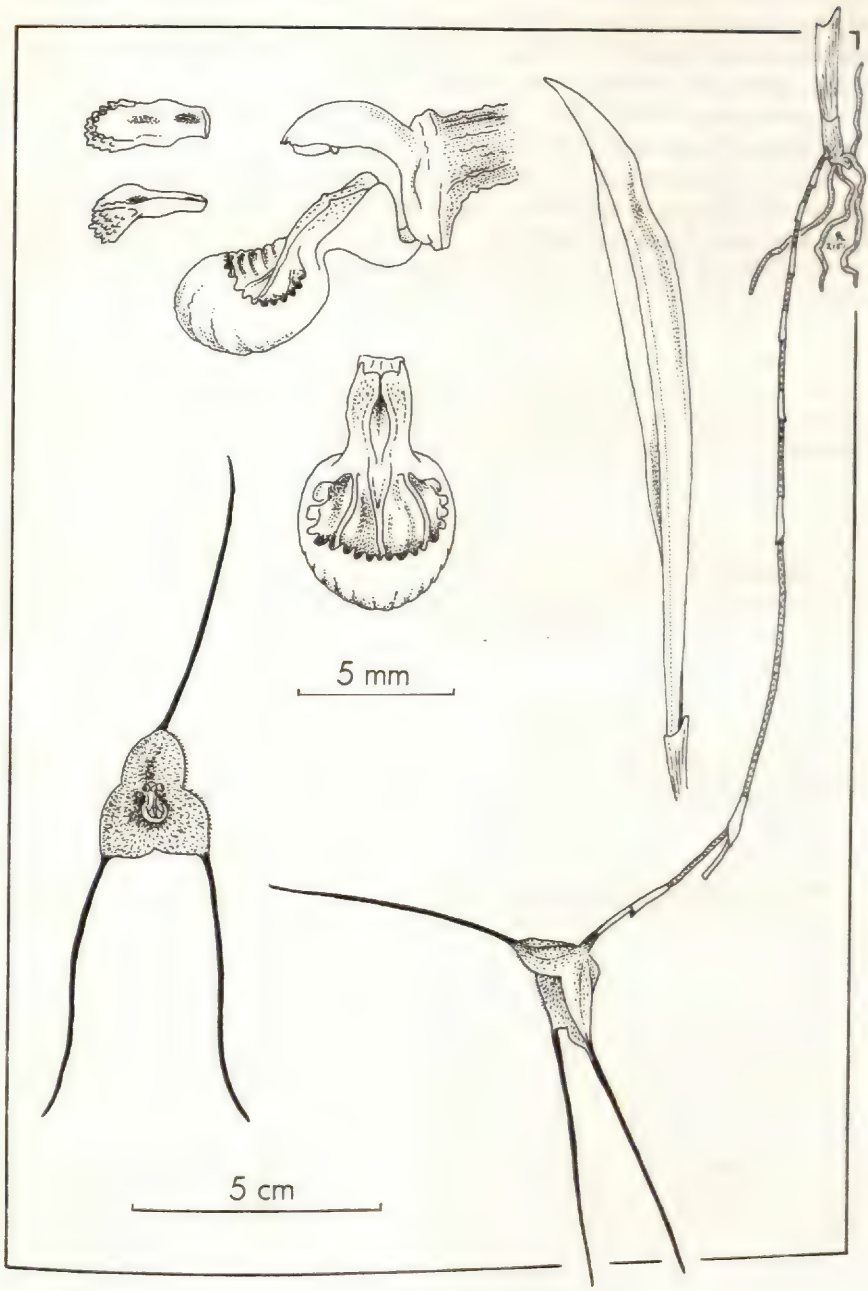


Plate 29. *Dracula erythrochaete* (Rchb.f.) Luer

The first specimens of this species were imported without collection data from Central America by F. Sander of St. Albans, and described by Reichenbach as *Masdevallia erythrochaete* in 1882. As treated here, *Dracula erythrochaete* is a variable species that includes variations that, when seen alone, would appear to be distinct species, and some have been recognized as such. Variations in the flowers occur among plants within a given population. The petals and lip of all these variations are similar and relatively constant in morphology.

After having examined numerous specimens exhibiting all combinations of gradations of size, shape and color of leaves and flowers, it can be concluded that *D. erythrochaete* is very variable taxon. The most distinct and prettiest aberration was described as *D. astuta* by Reichenbach. It has often been included in the synonymy of *D. erythrochaete*. *Dracula astuta* is distinguished from the usual variations considered to be *D. erythrochaete* by the larger size of the widely spread, flatter, long-tailed, more colorful flowers.

The question of the identities of *M. gaskelliana* and *M. burbidgeana* are impossible to resolve positively. They, too, were imported by F. Sander in 1882, but cultivated elsewhere, *M. gaskelliana* by Holbrook Gaskell at Liverpool, and by F. W. Moore at the Glasnevin Botanical Garden, Ireland. Although Reichenbach compared *M. gaskelliana* to a small *M. radiosa*, early authors (Veitch and Woolward), who probably had access to original plants, considered it synonymous with *M. erythrochaete*.

Of the Central American species of *Dracula*, *D. astuta*, *D. pusilla* and *D. ripleyana* seem sufficiently constant in differing morphology to be maintained separately from *D. erythrochaete*.

Dracula exasperata Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1005, 1989.

Ety.: From the Latin *exasperatus*, "with irregular, sharp points," referring to the surfaces of the lip and column.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls erect, slender, 2-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 18-25 cm long, the blade narrowly linear, acute, 1-1.3 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, horizontal to descending peduncle 7-17 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 10-12 mm long; pedicels 12 mm long; ovary minutely verrucose, 3 mm long, round in cross-section; **sepals** light yellow-green above the middle, dark purple below the middle, pubescent within, some of the hairs stellate, the dorsal sepal broadly ovate, carinate, 12 mm long, 12 mm wide, connate to the lateral sepals for 3 mm to form a gaping, sepaline cup, the apex obtuse, contracted into a slender, erect, dark purple tail 6-7 cm long, the lateral sepals ovate, oblique, 17 mm long, 14 mm wide, connate 11 mm into a broad, rounded mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** light yellow, marked with brown, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate; **lip** white with numerous pink dots, thick, spathulate, 9 mm long, 4.5 mm wide, the epichile deflexed, hemispherical, shallowly concave, 4 mm long, 4.5 mm wide, exasperate externally, the margins denticulate not incurved, with low, short, radiating lamellae, the hypochile oblong, dotted with brown, 5 mm long, 4 mm wide, minutely verrucose, with erect, subacute, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, exasperate, 8 mm long, the apex bifid, minutely fimbriate, the foot stout, 4 mm long.

COLOMBIA: Dept. of Putumayo: epiphytic in wet forest along the old road to Mocoa, Patoyaco, alt. 1800 m, collected by O. Ospina, Dec. 1979, flowered in cultivation at Colomborquídeas, 6 Apr. 1988, *C. Luer 13185* (Holotype: MO); same collection, flowered in cultivation, 16 Aug. 1990, *R. Escobar 4046*

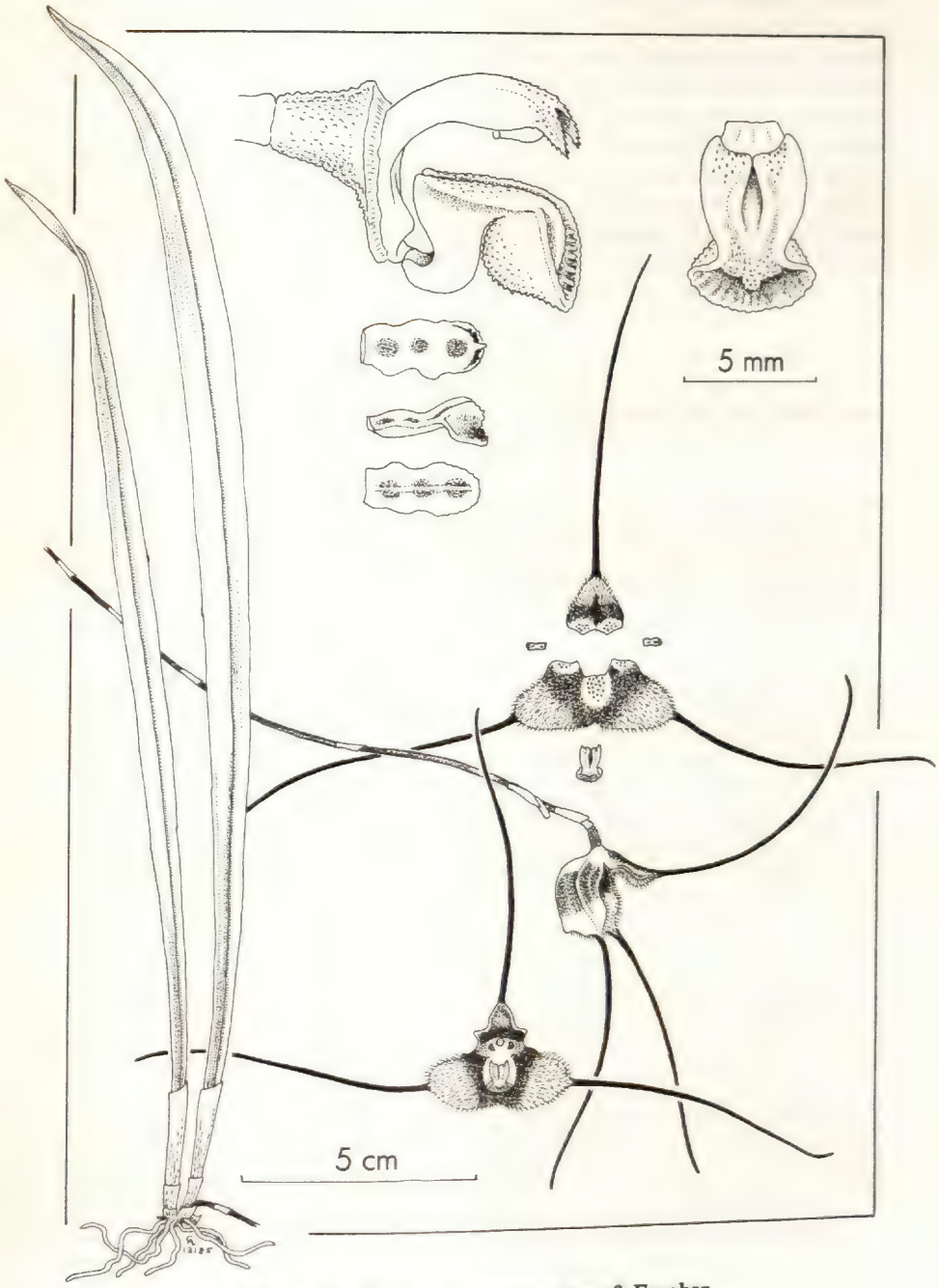


Plate 30. *Dracula exasperata* Luer & Escobar

Dracula exasperata is one of the more unusual species of the genus. It was discovered by Brother Octavio Ospina of Sibundoy in an orchid-rich valley on the eastern slopes of the Andes in southeastern Colombia in the department of Putumayo where it is apparently endemic.

The long, narrow leaves are not distinctive, nor are the descending, successively few-flowered peduncles. The flowers, however, are instantly recognizable. The sepals, densely pubescent within, are greenish white with dark purple suffusion on the inner halves. The oblong lateral sepals diverge 180°. The small lip is thick and the epichile is acutely deflexed upon the hypochile. The outer surface of the epichile and the column are minutely spiculate.

Dracula fafnir Luer, sp. nov.

Ety: Named for *Fafnir*, a dragon of an Icelandic saga.

Planta mediocris vel grandis, foliis angustis acutis longipetiolatis, floribus cupulatis sepalis angustis profunde fissis caudis gracilibus, labelli crassi epichilio suborbiculari concavo lamellis radiantibus.

Plant medium in size to large, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 2.5-4.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, tall-carinate, narrowly elliptical, long-petiolate, acute, 10-19 cm long including the petiole ca. 5 cm long, 1-2.2 cm wide, the base narrowly cuneate into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a horizontal to descending, sparsely bracted peduncle 12-14 cm long, from low on the ramicaul; floral bract, tubular, oblique, 10-11 mm long; pedicel 19 mm long; ovary 5 mm long, minutely pitted, round in cross-section; **sepals** dull white, suffused with red-brown along the margins and toward the apices, sparsely shortly pubescent within, the dorsal sepal elliptical, subacute, 14 mm long, 8 mm wide, connate to the lateral sepals for 5 mm to form a cupped flower, the apex contracted into a slender, forwardly directed, red-brown tail 26 mm long, the lateral sepals elliptical, oblique, 18-20 mm long, 14 mm wide, connate 10 mm into a forked lamina with the angle between the blades acute, the apices acute, contracted into tails similar to that of the dorsal sepal; **petals** white, cartilaginous, broadly obovate, 2.5 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded; **lip** pale yellow, subpandurate, 5 mm long, 3.5 mm wide, the epichile suborbicular, inflated, concave, 3 mm long, 3.5 mm wide, with a central carina flanked by multibranched, lesser carinae, the hypochile subovoid, 2 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 3 mm long, with a thick foot equally long.

ECUADOR: Prov. of Zamora-Chinchipe: probably Cordillera del Condor, alt. ca. 1400 m, imported out of flower with *Dracula simia*, collected by D. D'Alessandro, 1987, flowered in cultivation at J & L Orchids, 922-395, Dec. 1992, *C. Luer 16530* (Holotype: MO).

A plant of this not-too-handsome species was obtained in 1987 by J & L Orchids, Easton, CT, mixed with imported plants of *Dracula simia* from Dennis D'Alessandro. It did not flower until 1992. *Dracula simia* is known to be local-

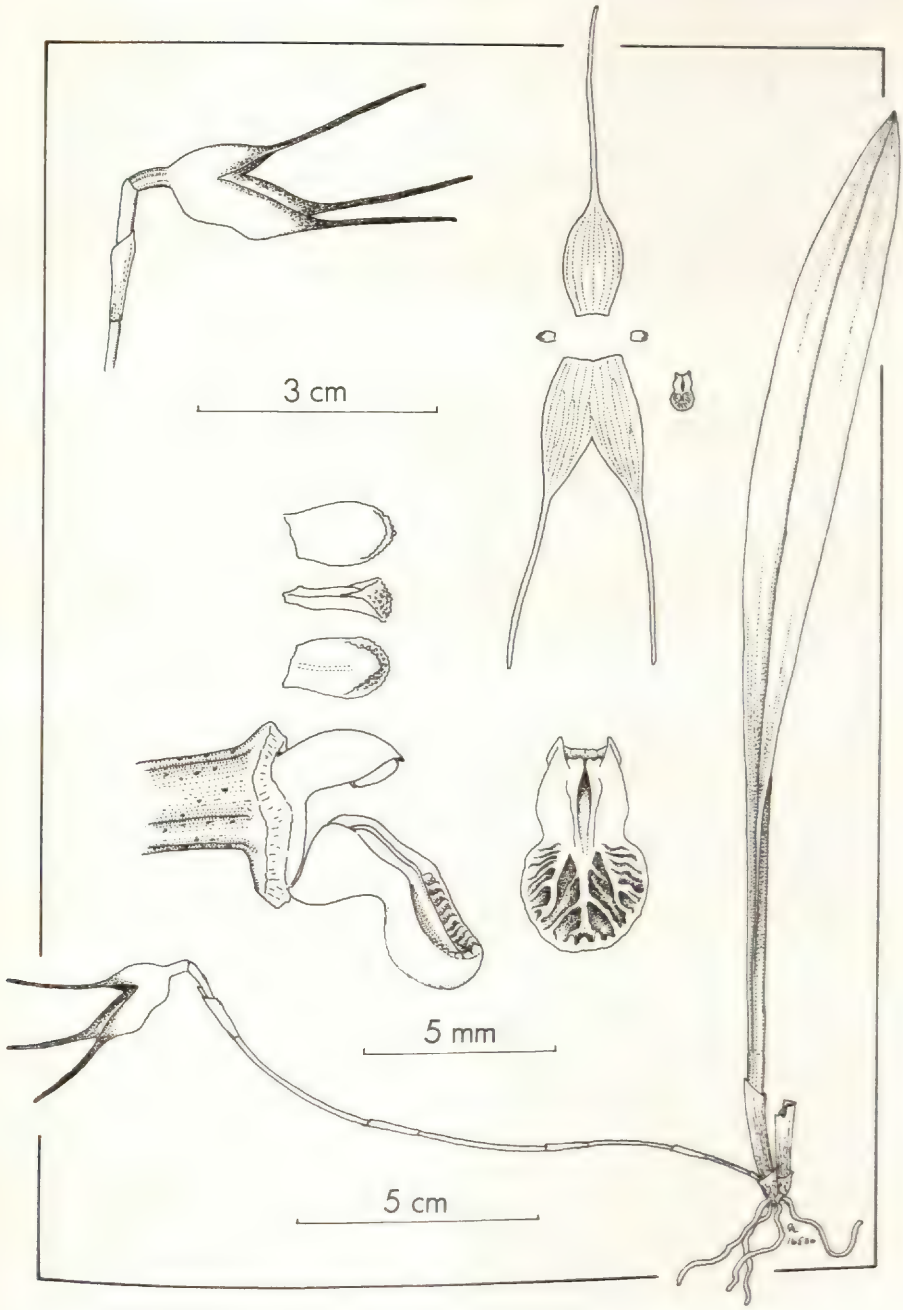


Plate 31. *Dracula fafnir* Luer

ly abundant in the Cordillera del Condor in southeasternmost Ecuador. Without much doubt, this species also comes from that locality.

In habit, the leaves are long and narrow with a more or less horizontal, few-flowered (one-flowered?) peduncle. Perhaps the only peduncle in hand was flowering for the first time. The whitish flower suffused with red-brown along the margins of the narrow sepals does not open widely. The elongate lateral sepals are connate about half their length with an acute angle between them. The forwardly directed tails are a little longer than the blades. The petals are not remarkable except for being shorter than usual. The lip is thick and subpandurate with only a slight constriction between the two halves. The epichile is concave with a central carina flanked on either side by lesser, multibranching lamellae.

Dracula felix (Luer) Luer, Selbyana 2: 195, 1978.

Bas.: *Masdevallia felix* Luer, Phytologia 39: 201, 1978.

Ety.: From the Latin *felix*, "fruitful," in reference to the large percentage of capsules produced.

Plant medium in size to large, epiphytic, densely caespitose; roots slender. Ramicauls stout, erect, 2-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 15-22 cm long including an indistinct petiole, 1.7-2.5 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a single flower, often produced in profusion, borne by short, slender, suberect to horizontal, several bracted, purplish, peduncles 3-6 cm long, from low on the ramicaul; floral bract, tubular, 5-6 mm long; pedicel 5-6 mm long; ovary dark brown, 3 mm long, with 6 low crests, round in cross-section, commonly forming a capsule; **sepals** dull white, lightly suffused with brown externally, suffused with rose and dotted with red below the middle within with clumps of red hairs, white-pubescent above the middle within, the dorsal sepal transversely ovate, 8 mm long, 9 mm wide, connate to the lateral sepals for 5 mm to form a deeply cupped flower, the free portion triangular, erect, obtuse, contracted into a slender, erect, dark red tail 25-35 cm long, the lateral sepals broadly ovate, oblique, concave, 11 mm long, 9 mm wide, connate 9 mm to form a broad, shallow mentum, suffused with red-orange, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** yellowish white, marked with dark purple, cartilaginous, oblong, 3 mm long, 1.25 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate; **lip** white, suffused with rose to red, pandurate, 4.5 mm long, 2 mm wide, the epichile deflexed, suborbicular, 1.5 mm long, 1.5 mm wide, shallowly concave with an erect, thickened central lamella flanked by a short, marginal lamella to either side, the hypochile thick, elliptical, 2.5 mm long, 1.5 mm wide, with erect, rounded, marginal angles, broadly channeled centrally, the concave base hinged to the column-foot; **column** yellowish white, stout, semiterete, 3 mm long, with a thick foot 3 mm long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest above Chiriboga, alt. ca. 2000 m, 1975, collected by B. Malo, flowered in cultivation at La Ceja, Colombia, by M. & O. Robledo, 21 Jan. 1978, *C. Luer 2285* (Holotype: SEL; Isotype: JAUM); cloud forest between Calacalí and La Liberia, alt. 2100 m, 7 Apr. 1974, *C. Luer, S. Dalström, T. Höijer & A. Hirtz 10007* (MO); between Tandapi and Sarapullo, alt. 1500-1800 m, 20 Mar. 1986, *C. Dodson, C. Luer, A. Hirtz & A. Embree 16356* (MO); west of Lloa, Río Cinto, alt. 2200 m, 20 Feb. 1992, *S. Dalström et al. 1525* (MO). Prov. of Carchi: epiphytic in cloud forest along the mountain crest behind Río Blanco near Km 78 from Ibarra to San Lorenzo, alt. 1400 m, 14 Dec. 1961, *C. H. Dodson & L. B. Thien 1607* (SEL). Prov. of Imbabura: Selva Alegre, alt. 1400 m, May 1989, *A. Hirtz & X. Hirtz 4230A* (MO); above Río Los Cedros, alt. 1700 m, 21 Jan. 1993, *S. Dalström, T. Höijer & H. Wanntorp 1706* (MO).

COLOMBIA: Dept. of Nariño: epiphytic in cloud forest above Ricaurte, mixed with *D. vespertilio*, alt. ca. 1500 m, collected by J. L. Aguirre, flowered in cultivation at Colomborquídeas, 4 Nov. 1990, *R. Escobar 4051* (JAUM).

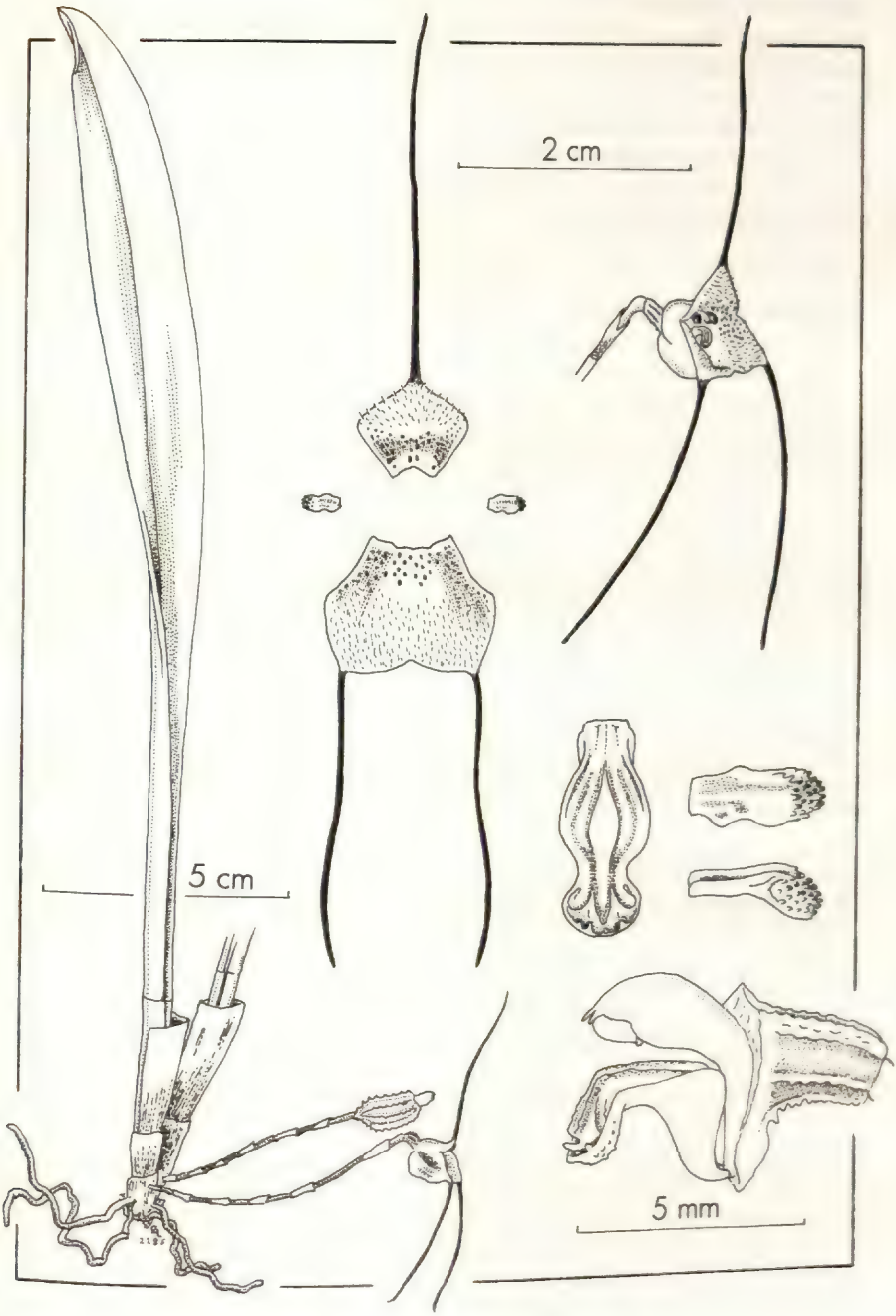


Plate 32. *Dracula felix* (Luer) Luer

This species occurs relatively frequently on the western slopes of the Andes of northwestern Ecuador and southernmost Colombia. It was apparently first collected by Calaway Dodson and Leonard Thien in their early travels in 1961, and it has been seen on numerous occasions since that time. *Dracula felix* is one of the few species of *Dracula* that can be easily identified in the wild because numerous, short, suberect, single-flowered peduncles, old or new, are usually present. Numerous flowers are often produced simultaneously, and many produce a winged capsule. Copious fruits are also produced in cultivation. The flowers are small, whitish, and deeply cupped with dark red tails.

Dracula fuligifera Luer, Thesaurus Dracularum 4: 6, 1991.

Ety.: From the Latin *fuligifer*, "bearing soot," in reference to the blackish speckling of the sepals.

Syn.: *Dracula fuliginosa* sphalm.

Ety.: From the Latin *fuliginosus*, "full of soot," referring to the appearance of the sepals.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, acute, 12-17 cm long, 1-1.5 cm wide, gradually narrowed below into the indistinctly petiolate, conduplicate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a slender, horizontal or descending, sparsely bracted peduncle 4-5 cm long, from low on the ramicaul; floral bract tubular, 8 mm long; pedicel 10-11 mm long; ovary 6 mm long, round in cross-section; **sepals** pale greenish, diffusely covered within by minute, purple-black warts, the dorsal sepal transversely ovate, 13 mm long, 16 mm wide, connate to the lateral sepals for 5 mm to form a widely expanded flower, the apex obtuse, contracted into a slender, blackish tail 5 cm long, the lateral sepals broadly ovate, oblique, 17 mm long, 15 mm wide, connate 8 mm into a shallow mentum, the apices obtuse, contracted into tails similar to that of the dorsal sepal; **petals** brown, cartilaginous, oblong, 3.5 mm long, 2 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina short, subacute, denticulate, the outer lamina rounded; **lip** pinkish orange, spathulate, 8 mm long, 6 mm wide, the epichile suborbicular, 4.5 mm long, 6 mm wide, deeply concave with incurved margins, with about 7 incomplete laminae within, the hypochile oblong, 4 mm long, 3.75 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 4.5 mm long, with a stout foot 2 mm long.

ECUADOR: Prov. of Pastaza: obtained by J & L Orchids, Easton, CT., from Fred Fuchs, without locality, flowered in cultivation 4 Mar. 1978, *C. Luer 2786* (Holotype: SEL); above Río Negro, alt. ca. 2000 m, Feb. 1979, collected by F. Freire, flowered in cultivation at Colomborquídeas, 15 Mar. 1981, *R. Escobar s.n.* (JAUM); same collection, flowered 4 Nov. 1990, *R. Escobar 4052* (MO); Río Zuñag, alt. 2000 m, Feb. 1991, *A. Hirtz et al. 5125* (MO).

This species is apparently endemic in a small area on the eastern slopes of the Andes in central Ecuador. It was first illustrated from a specimen cultivated by J & L Orchids, but it was confused with another specimen, a color form of *D. radiella*, which was deposited as the type of *D. fuliginosa*. The specimen illustrated (*2786*) was designated later *D. fuligifera*. In the dried state, most of the medium-sized species are indistinguishable.

Vegetatively *D. fuligifera* is not distinctive. Except for the diffuse speckling of

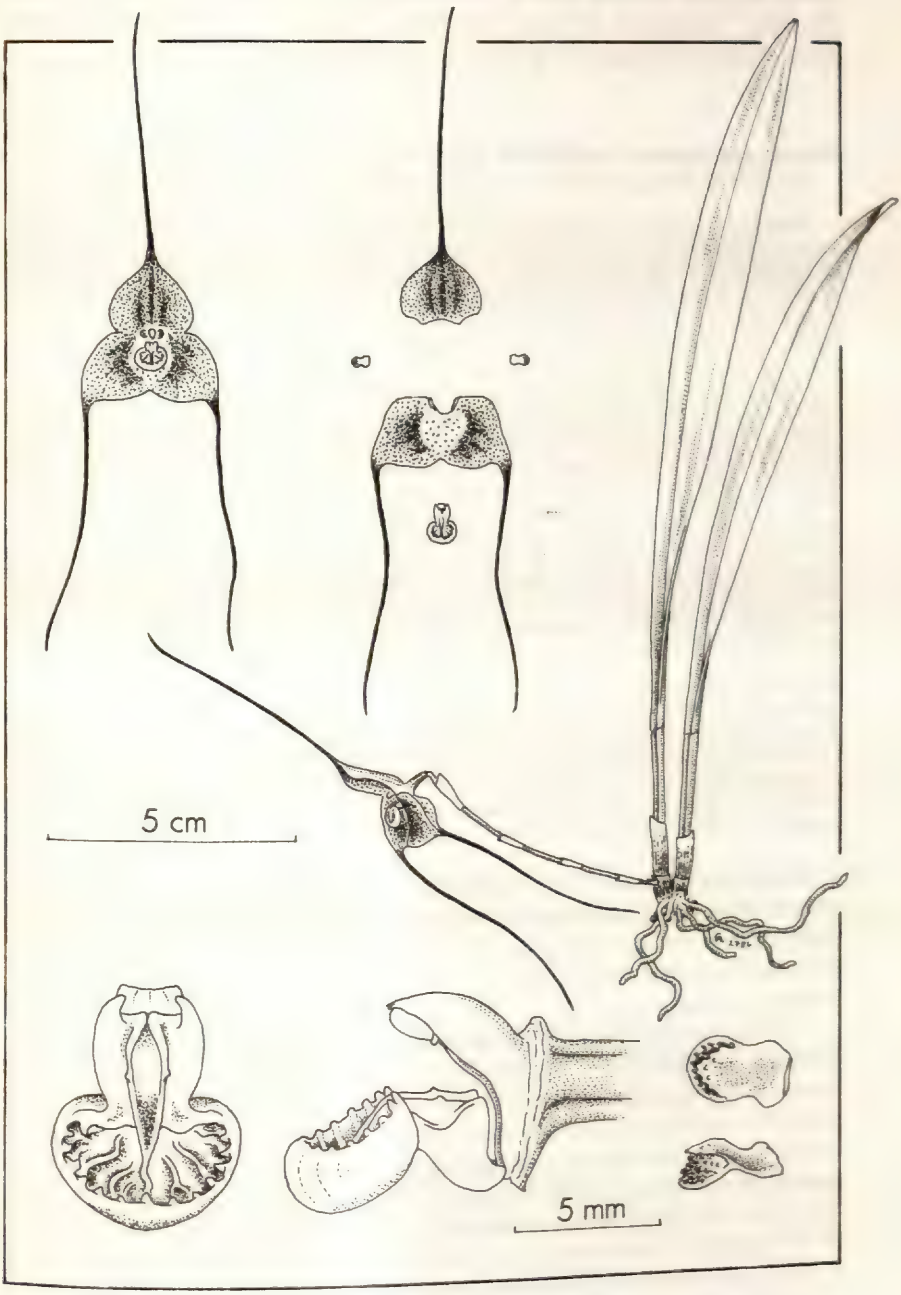


Plate 33. *Dracula fuligifera* Luer

minute, sooty-gray warts on the inner surfaces of otherwise glabrous sepals, the flowers are most similar to those of the variable *D. houtteana-psittacina* complex of Colombia. The epichile of the lip is concave with toothed, involute margins, and a primary carina with fragments of others to either side within.

Dracula gastrophora Luer & Hirtz, Amer. Orchid Soc. Bull. 58: 1005, 1989.

Ety.: From the Greek *gastrophoros*, "bearing a paunch," in allusion to the epichile of the lip.

Plant large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 3-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-22 cm long including a petiole 4-6 cm long, the blade broadly elliptical, subplicate, acute, 3.5-5.5 cm wide, narrowed below into the conduplicate petiole. **Inflorescence** a loose, successively several-flowered raceme up to 12 cm long, borne by a slender, suberect to horizontal peduncle 17-22 cm long, with 4-6 distant bracts, from low on the ramicaul; floral bracts 6-8 mm long; pedicels 10-16 mm long; ovary purple-brown, microscopically verrucose, 5 mm long; **sepals** microscopically pubescent within, light yellow-green, diffusely dotted with dark brown and suffused with dark brown in a broad band between the lower and middle thirds, the dorsal sepal broadly ovate, 20 mm long, 20 mm wide, connate to the lateral sepals for 8 mm to form a sepaline cup, the apex obtuse, contracted into a slender, erect, deep purple tail 3.5-5 cm long, the lateral sepals subquadrate, oblique, 20 mm long, 15 mm wide, connate 17 mm into a broad mentum, with a thick, orange band extending laterally from the column-foot, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with dark brown, cartilaginous, oblong-spathulate, 4 mm long, 2 mm wide, the apex denticulate, rounded, bivalvate, papillose between the laminae, the inner lamina rounded, incurved; **lip** cream-colored, spathulate, 13 mm long, 7 mm wide, the epichile ovoid, inflated, 9 mm long, 7 mm wide, the distal half folded back upon itself, filled within by radiating lamellae, the hypochile oblong, 4 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, 5 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Pichincha: without locality, collected by A. Hirtz, flowered in cultivation at Colomborquídeas, Colombia, 12 Mar. 1989, *C. Luer 14130* (Holotype: MO); flowered in cultivation at Colomborquídeas, 25 Apr. 1988 *C. Luer 13310* (MO); flowered in cultivation at J & L Orchids, Easton, CT., 25 Apr. 1987, *C. Luer 12827* (MO).

Plants of this species were collected without flowers and distributed by Alexander Hirtz as *Dracula chiroptera*. When the plants flowered, they proved to be a different species.

Vegetatively *D. gastrophora* is characterized by the relatively wide, subplicate leaves and descending peduncles. The cupped flowers, diffusely and densely covered with dark brown, coalescing spots, are average in size for the genus. Most distinctive is the inflated apical half of the epichile of the lip that is acutely folded back upon itself, shielding from view the lamellae within. The peculiar lip is similar to that of *D. marsupialis*. The considerably smaller sepals of the latter, however, form a widely spread, flat, mostly yellow flower.

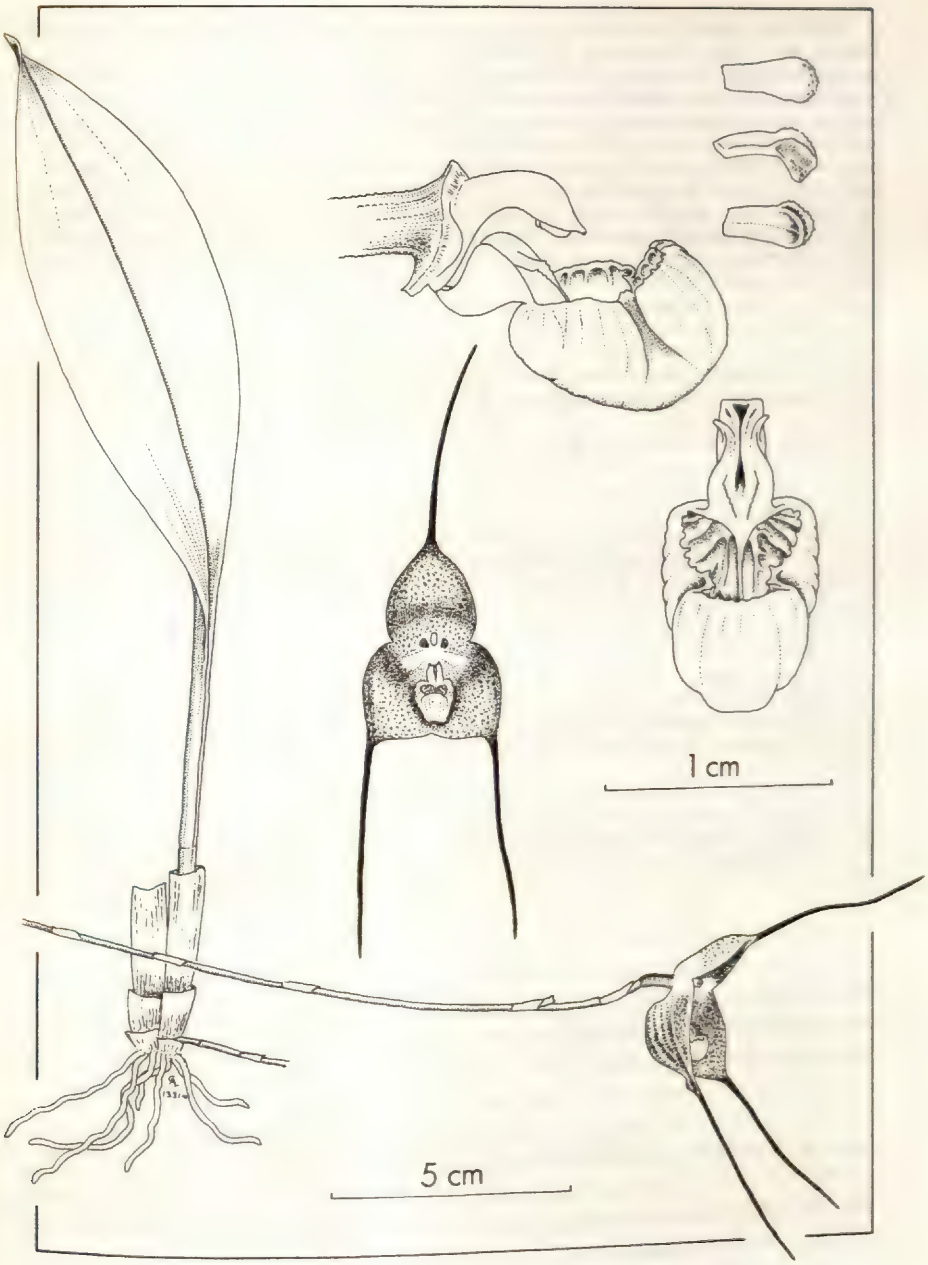


Plate 34. *Dracula gastrophora* Luer

Dracula gigas (Luer & Andreetta) Luer, Selbyana 2: 195, 1978.

Bas.: *Masdevallia gigas* Luer & Andreetta, Phytologia 39: 204, 1978.

Ety.: From the Latin *gigas*, "a mythological giant," in reference to the size of the plant and flowers.

Plant large, epiphytic to terrestrial, caespitose; roots coarse. Ramicauls erect, stout, 3-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-40 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 2.5-3.5 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme up to 20 cm long, borne by a purple, erect, occasionally horizontal, stout, sparsely bracted peduncle 20-45 cm long, from low on the ramicaul; floral bract tubular, 1-2 cm long; pedicel 2-4.5 cm long; ovary brown, 6-7 mm long, round in cross-section; **sepals** light pinkish brown, (a dull yellow background with numerous, minute, purple-brown dots), glabrous, the dorsal sepal ovate, 30-35 mm long, 27 mm wide, connate to the lateral sepals for 12 mm to form a cupped but gaping flower, the obtuse apex contracted into a drooping, red-brown tail ca. 6 cm long, the lateral sepals ovate, oblique,40 mm long, 23 mm wide, connate 18 mm into a deep, obtuse, compressed mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong-obovate, 4 mm long, 2.5 mm wide, the apex rounded, bivalvate, densely papillose between the laminae, the inner lamina short, acute, denticulate; **lip** pink, spathulate, 10 mm long, 6 mm wide, the epichile suborbicular, 6 mm long, 6 mm wide, concave with several, tall, incomplete radiating lamellae, the hypochile oblong, 4 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, 5 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest above Maldonado, alt. 1800-2200 m, Oct. 1975, collected by A. Andreetta and A. Hirtz, flowered in cultivation in Cuenca, 12 July 1977, *C. Luer 1690* (Holotype : SEL); same area, alt. ca. 2000 m, July 1975, collected by W. Teague, R. Hawley et al., flowered in cultivation by M. & O. Robledo at La Ceja, 8 Nov. 1975, *R. Escobar 1639* (JAUM); same area, alt. 2550 m, 5 Aug. 1976, *B. Øllegaard & H. Balslev 8479* (AAU); same area, alt. 2000 m, 21 Feb. 1978, *C. Luer, J. Luer & A. Hirtz 2681* (SEL); same area, 2 Apr. 1984, *C. Luer, S. Dalström & T. Höijer 9896* (MO); same collection, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13126* (MO).

COLOMBIA: Dept. of Valle del Cauca: between Costa Rica and Ginebra, alt. 1800-1900 m, collected by J. Miranda, Jr., Dec. 1987, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13011A* (MO).

This large species was first collected in 1975 in virgin cloud forest along the new road to Maldonado from Tulcán in northwestern Ecuador by Padre Andreetta and Alexander Hirtz. The same year it was collected independently in the same area by Walter Teague, the late Ron Hawley and companions. It was abundant at that time, along with several other species of *Dracula* (*D. andreettae, D. dalstroemii, D. hawleyi, D. levii, D. psyche* and *D. radiella*), that are endemic to this valley, but they are all becoming increasingly rare because much of the forest has now been cut and the valley is becoming drier.

Dracula gigas is a robust species that produces large, light pinkish brown flowers on long, suberect peduncles. Pale forms have been mistaken for *D. hawleyi*. The first flower of each peduncle is considerably larger than the subsequent flowers. The pink, orbicular epichile of the lip contains tall, radiating lamellae.

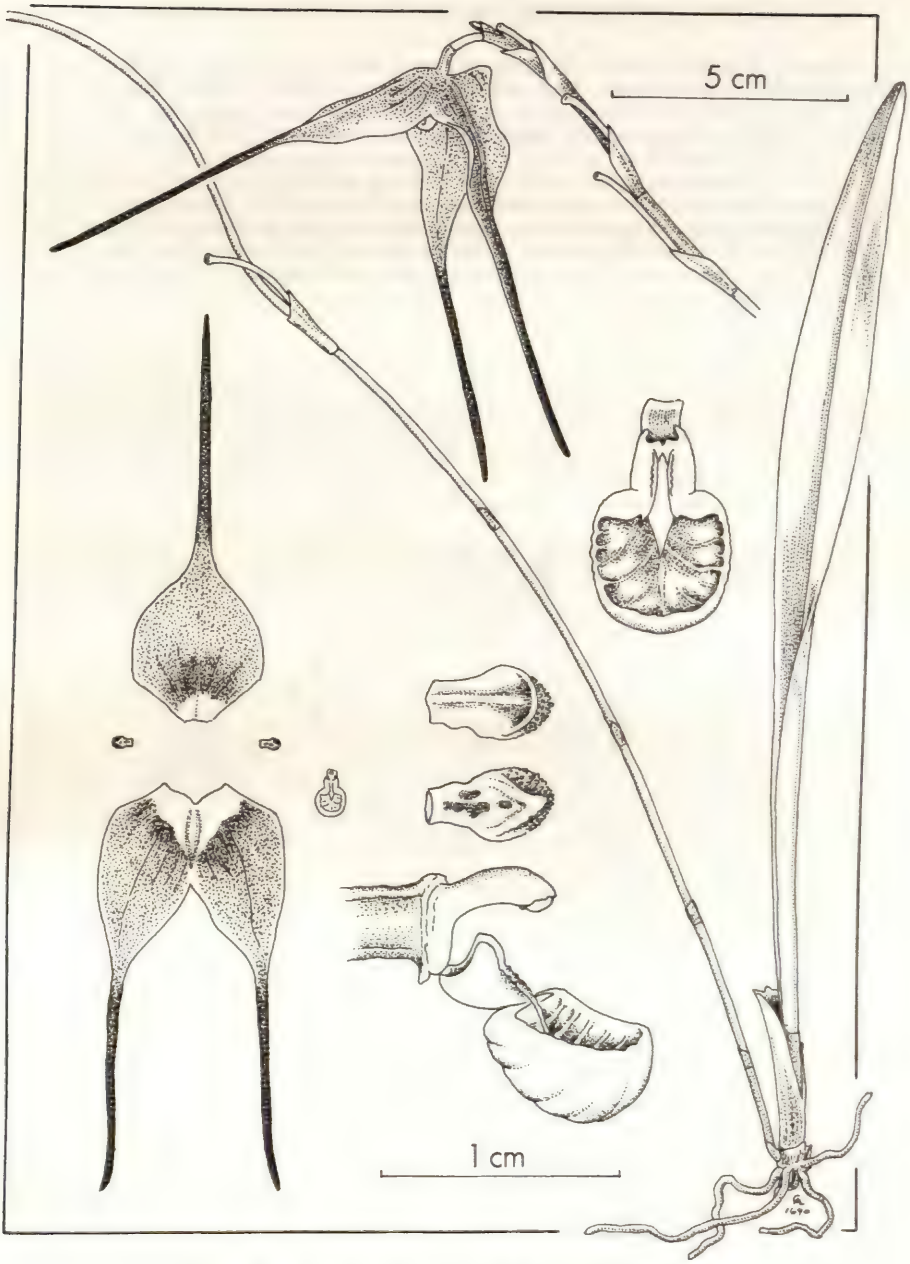


Plate 35. *Dracula gigas* (Luer & Andreetta) Luer

Dracula gorgona (Veitch) Luer & Escobar, Selbyana 2: 195, 1978.

Bas.: *Masdevallia chimaera* Rchb.f. var. *gorgona* Veitch, Man. Orchid. Pl. 5: 31, 1889.

Ety.: Named for the Greek mythological gorgons, three horrible sisters with hair of snakes.

Syn.: *Masdevallia gorgona* hort. ex Veitch, Man. Orchid. Pl. 5: 31, 1889, in synonymy.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, subplicate, carinate, elliptical, acute, 13-22 cm long including an indistinct petiole 3-5 cm long, 2.5-4.5 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 10 cm long of showy flowers, borne by a stout, horizontal to descending peduncle 12-20 cm long, from low on the ramicaul; floral bract, tubular, 10-15 mm long; pedicel 15-23 mm long; ovary 6-8 mm long, subverrucose, round in cross-section; **sepals** basic color greenish white, or yellowish white, diffusely or irregularly spotted with purple or brown, coarsely pubescent within, the dorsal sepal suborbicular, 25-32 mm long, 27-35 mm wide, connate to the lateral sepals for 9 mm to form a flat, widely spread flower, the apex rounded, contracted into a slender, erect, dark purple-brown tail 6-11 cm long, the lateral sepals often sparsely spotted medially, broadly ovate, oblique, 35-40 mm long, 25-30 mm wide, connate 21-23 mm to form a broad, shallow mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with purple or brown, cartilaginous, oblong-obovate, 4 mm long, 1.5-2 mm wide, the apex bivalvate, papillose between rounded laminae, the inner lamina denticulate, the outer lamina recurved; **lip** rose, salmon to orange, spathulate, 13 mm long, 10 mm wide, the epichile transversely oblong, shallowly concave, 8 mm long, 10 mm wide, with the lateral margins curved up but not involute, the apex sometimes inflexed, with 3 primary lamellae and multiple, radiating, branching, elevated veins within, the hypochile oblong, 5-6 mm long, 4 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, flexibly hinged to the column-foot; **column** yellow, stout, semiterete, 5-6 mm long, with a stout foot 4-5 mm long.

COLOMBIA: Dept. of Chocó: Guangarales, alt. 2200 m, 1986, collected by M. Zapata, flowered in cultivation at Colomborquídeas, 11 Apr. 1988, *C. Luer 13162* (Neotype: MO). Dept. of Caldas: Munic. of Riosucio, Jardín, alt. 1800-2000 m, 1971, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, Dec. 1972, *R. Escobar 904* (JAUM), flowered in cultivation, 11 Oct. 1977, *C. Luer 1985* (SEL), flowered in cultivation at Colomborquídeas, 16 Apr. 1983, *C. Luer 8719, 8718* (SEL). Dept. of Risaralda: Munic. of Pueblo Rico, Cerro Lucero, alt. ca. 2200 m, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 17 Dec. 1972, *R. Escobar 905* (JAUM).

In the last century this uncommon species was grown horticulturally as *Masdevallia gorgona* without a formal description. Later it was known as a variety of *M. chimaera*. Nothing is known of its original collection, but recently it has been found in the Western Cordillera of Colombia. The coarsely pubescent sepals are large and round, yellowish white, and densely and diffusely spotted with purple-brown except on the inner halves of the lateral sepals where the spots are usually lightly concentrated making identification from a distance easy.

Superficially, the flower of *Dracula gorgona* is most similar to that of *D. wallisii*. The sepals of *D. gorgona* are rounder and abruptly contracted, instead of tapering, into tails. The most distinctive feature, however, is not the variably spotted color pattern, but the shape of the shallowly concave, flexibly hinged lip. The lateral margins are curved up, but neither incurved nor involute.

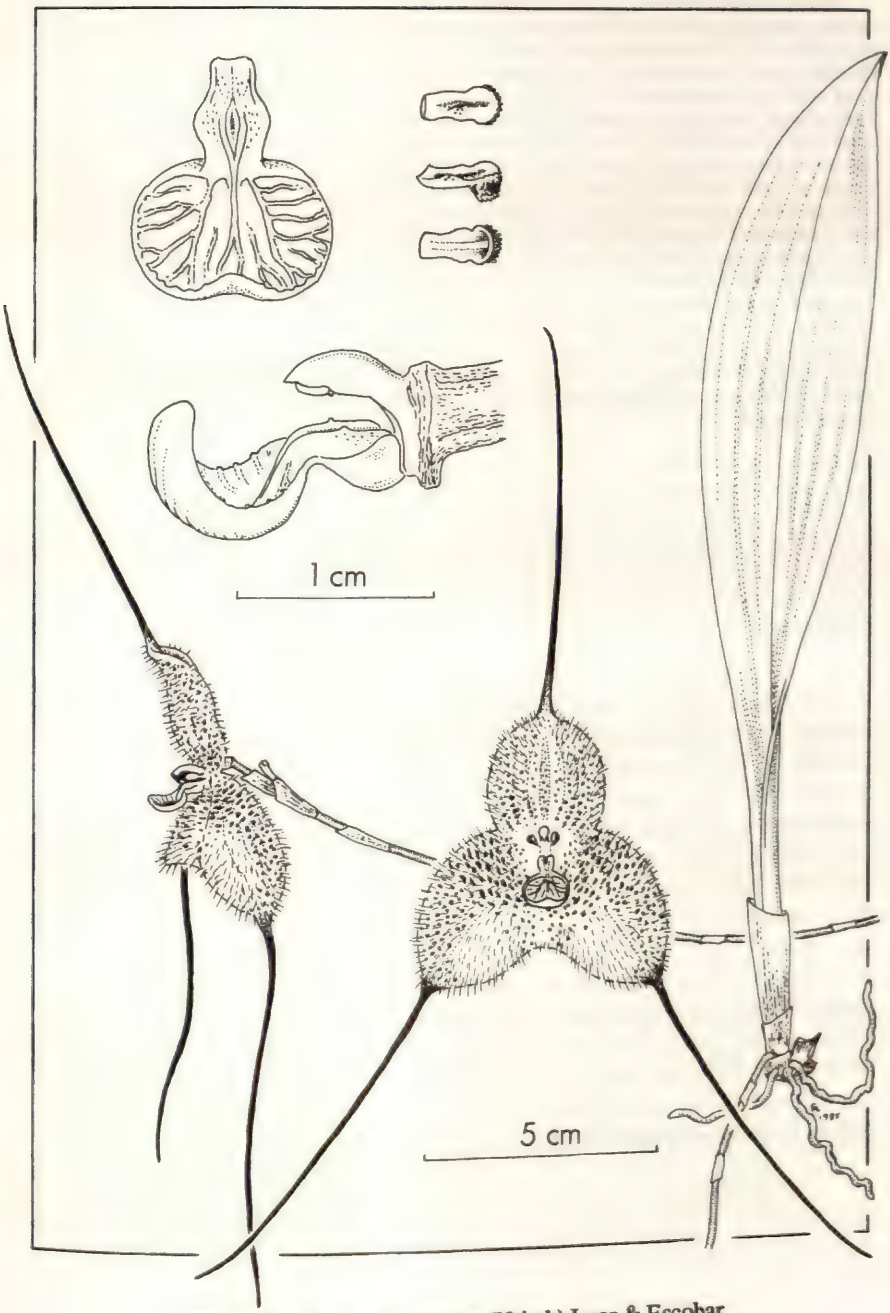


Plate 36. *Dracula gorgona* (Veitch) Luer & Escobar

Dracula gorgonella Luer & Escobar, Orquideología 15: 19, 1981.

Ety.: Named for the similarity of the species to a diminutive-flowered *Dracula gorgona*.

Plant medium-sized to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, subplicate, elliptical, acute, 12-22 cm long including an indistinct petiole, 3-4 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a sparsely bracted, horizontal to descending peduncle 8-15 cm long, from low on the ramicaul; floral bract, tubular, 7-10 mm long; pedicel 11-15 mm long; ovary thick, 6 mm long, round in cross-section; **sepals** light yellow, spotted with red-brown, most intensely on the inner halves, sometimes coalescing into stripes, with a dense, short, yellow pubescence, broadly ovate to suborbicular with obtuse to rounded apices, the dorsal sepal 12-13 mm long, 12-18 mm wide, connate to the lateral sepals for 5-6 mm to form an expanded flower, the apex abruptly contracted into a slender, erect, brown tail 3-5.5 cm long, the lateral sepals 16-20 mm long, 14-20 mm wide, connate 11-12 mm to form a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3.5 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** white or pink, dotted with pink, spathulate, 9-10 mm long, 6-7 mm wide, the epichile suborbicular, 6-7 mm long, 6-7 mm wide, shallowly concave toward the base, with smooth, flat margins, with multiple, raised, radiating, branching veins within, the hypochile oblong, 3-3.5 mm long, 3-3.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Antioquia: Munic. of Andes, eastern slopes of Farallones de Citará, Santa Inés, alt. 1800-2000 m, May 1975, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 12 May 1979, *R. Escobar 1975* (Holotype: JAUM), flowered in cultivation at La Ceja, 14 Jan. 1979, *C. Luer 3680* (SEL); flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13127* (MO).

This rare species was discovered by the well-known Colombian collector J. M. Serna in 1975. Apparently it is restricted to the forests of the Western Cordillera of the department of Antioquia, north of the range of the much larger-flowered but very similar *Dracula gorgona*. Vegetatively the broad, subplicate leaves of the two species are inseparable. Florally *D. gorgonella* is distinguished by the much smaller flowers, sometimes with the same color-pattern, with similarly shaped, round sepals with much shorter tails. The anterior half of the epichile of the rose-colored lip is flat or slightly incurved.

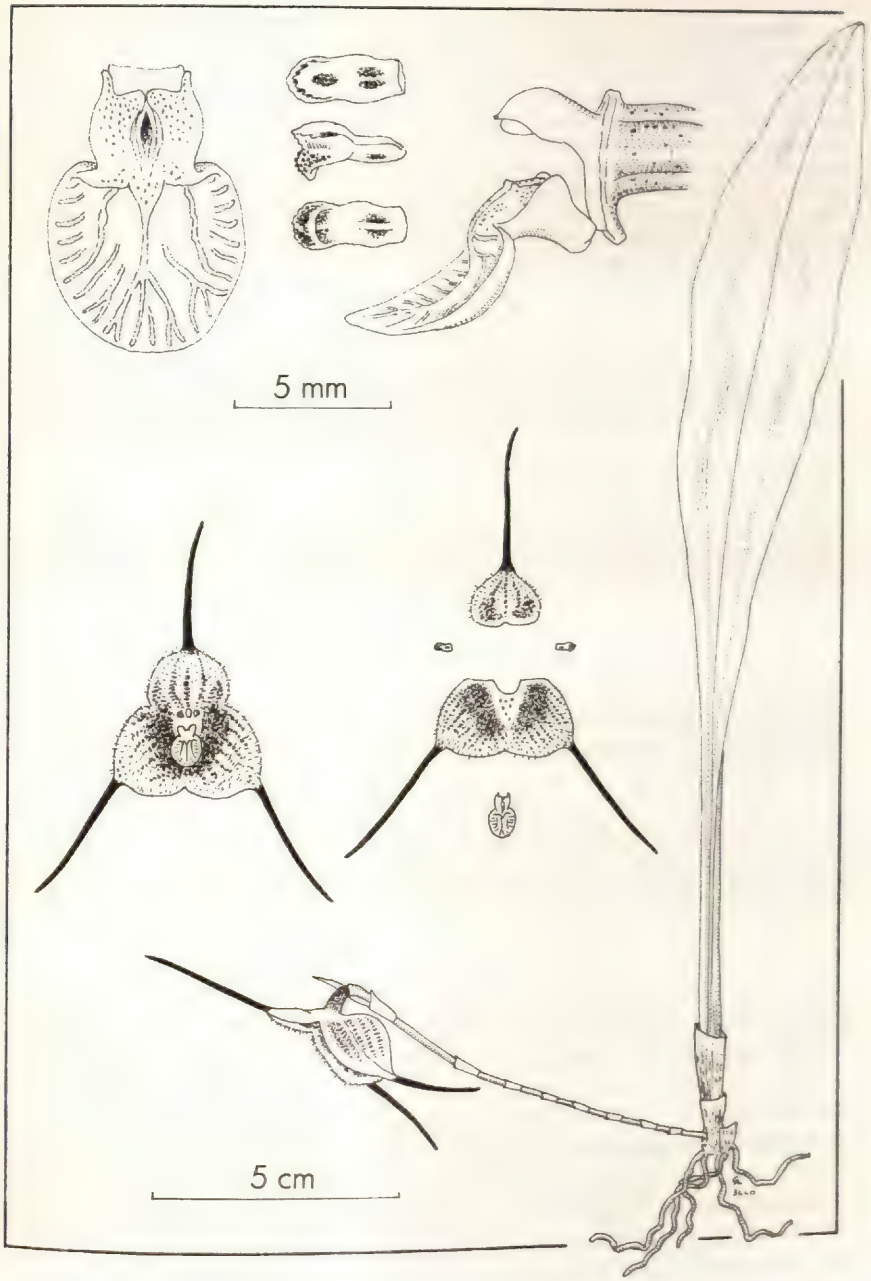


Plate 37. *Dracula gorgonella* Luer & Escobar

Dracula hawleyi Luer, Selbyana 2: 368, 1978.

Ety.: Named in honor of the late Ronald M. Hawley of Mill Valley, California, co-discoverer of this species.

Plant medium to large in size, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 2-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly linear-obovate, acute, 17-31 cm long, 1.5-2 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a horizontal to suberect, sparsely bracted peduncle 15-20 cm long, from low on the ramicaul; floral bract, tubular, oblique, 15-16 mm long; pedicel 30 mm long; ovary yellowish, 6-7 mm long, round in cross-section; **sepals** yellowish white, suffused with light orange-brown within near the middle, glabrous, the dorsal sepal obovate, 22 mm long, 18 mm wide, connate to the lateral sepals for 12 mm to form a gaping, sepaline cup, the apex obtuse, contracted into a slender, brown tail 7 cm long, the lateral sepals ovate, oblique, 27 mm long, 16 mm wide, connate 16 mm into a broad lamina with a narrow mentum, the apices acute, contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with brown above the middle, orange below the middle, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina short, acute, subdenticulate, the outer lamina obtuse, recurved; **lip** white, spathulate, 8.5 mm long, 5 mm wide, the epichile suborbicular, concave, 5 mm long, 5 mm wide, with minutely denticulate margins, with a central, verrucose carina and 3-4 incomplete lamellae radiating on either side, the hypochile indistinctly demarcated from the epichile, suboblong, 3.5 mm long, 2.75 mm wide, with erect, rounded, marginal angles, cleft centrally between a pair of plates, the concave base hinged to the column-foot; **column** white, stout, semiterete, 5 mm long, with a stout foot 2 mm long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest above Maldonado, alt. 2500 m, 20 May 1976, flowered in cultivation in Mill Valley, CA, 11 Oct. 1978, *R. Hawley & R. Levi 7601* (Holotype: SEL), C. Luer illustr. 3454; same collection, flowered in cultivation at J & L Orchids, Easton, CT, 28 Sept. 1991, *C. Luer 15441A* (MO).

This rare species was discovered in 1976 by Ron Hawley and companions along a newly constructed road in northernmost Ecuador. Having characters more or less intermediate between *D. gigas* and *D. levii*, two of the sympatric species of *Dracula*, *D. hawleyi* had been suspected of being a natural hybrid between them. The only other known collection of *D. hawleyi* was made in the same area in 1981 by Stig Dalström and companions, but this collection is documented only by a color transparency. Light-colored forms of *D. gigas* are often mistaken for *D. hawleyi*.

Dracula hawleyi is distinguished by the pale yellow or whitish flowers suffused with light orange-brown within. There is no callus at the apices of the sepals that is characteristic of the snow white-flowered *D. levii*. The flowers of *D. hawleyi* most closely resemble those of *D. gigas*. The mentum of the synsepal below the column-foot is less conspicuous. The lip of *D. hawleyi* is considerably smaller with an obscure transition between the epichile and the hypochile, and the small epichile contains only a few incomplete lamellae. The large, orbicular epichile of *D. gigas* is filled with radiating lamellae.

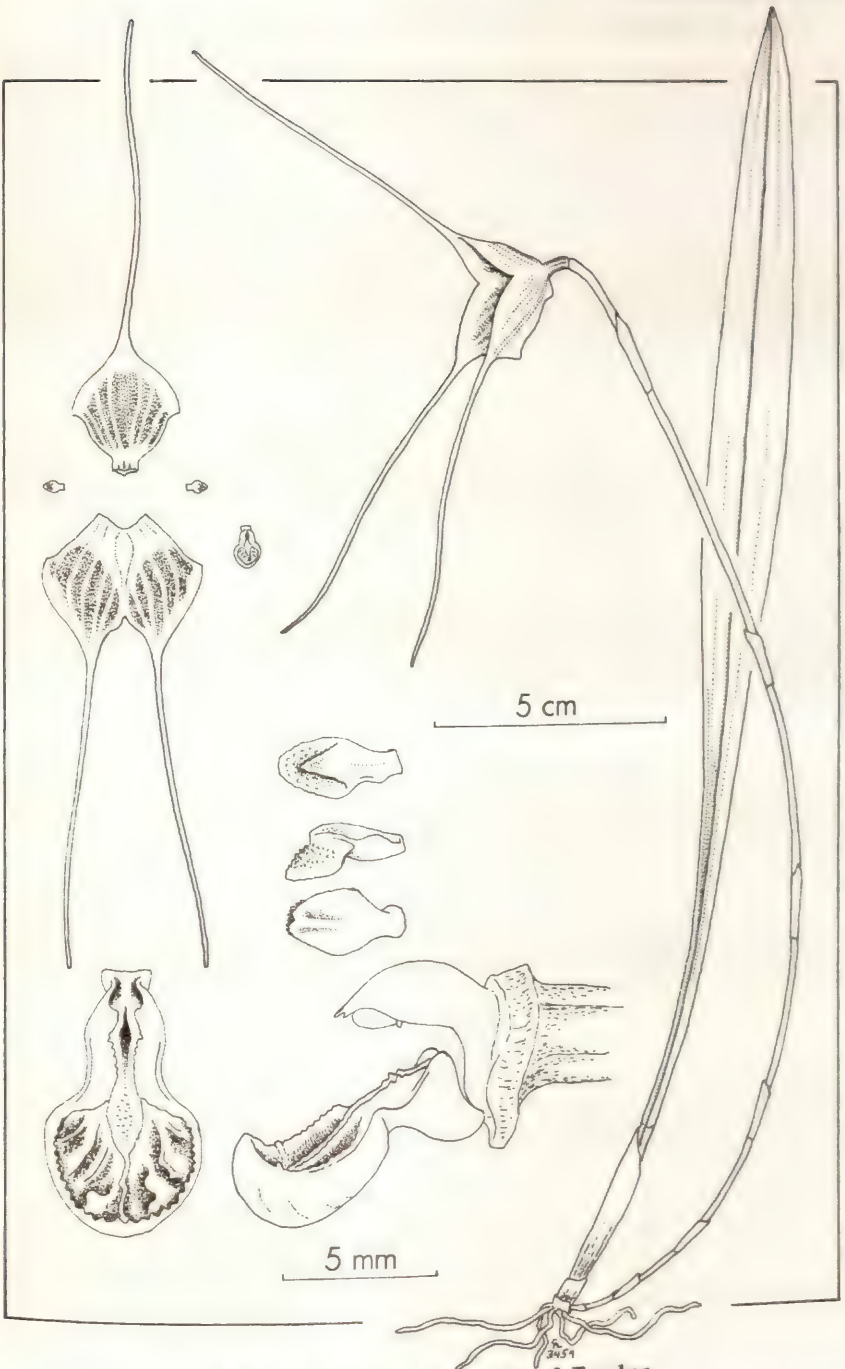


Plate 38. *Dracula hawleyi* Luer & Escobar

Dracula hirsuta Luer & Andreetta, Phytologia 47: 59, 1980.

Ety.: From the Latin *hirsutus*, "covered with erect hairs," in reference to the hirsute sepals.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 4-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, subacute, 16-28 cm long 1.5-1.8 cm wide, gradually narrowed below to the conduplicate, indistinctly petiolate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a slender, descending, sparsely bracted peduncle 5-9 cm long, from low on the ramicaul; floral bract tubular, 15 mm long; pedicel 10 mm long; ovary 4 mm long, round in cross-section; **sepals** red-purple externally, dark purple-brown with a dense, purple pubescence within, obscuring the cream-colored background, the dorsal sepal broadly ovate, 14 mm long, 16 mm wide, connate to the lateral sepals for 5 mm to form a broad, shallow, sepaline cup, the apex obtuse, with a few white hairs near the margin, contracted into a slender, erect, maroon tail 6-9 cm long, the lateral sepals white along the inferior margin with white hairs, ovate, oblique, 18 mm long, 17 mm wide, connate 13 mm to form a shallow mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** cream, marked with purple, cartilaginous, oblong, 3 mm long, 2 mm wide, the apex bivalvate, densely verrucose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, revolute; **lip** white, suffused with orange, spathulate, 10 mm long, 6.5 mm wide, the epichile ovate with the apex rounded, 6 mm long, 6.5 mm wide, concave with erect, denticulate margins, the concavity filled with 3 (sometimes 5) tall, radiating, undulating lamellae plus a few shorter, incomplete segments, the hypochile obovate, 3 mm long, 3.5 mm wide, with erect, obtuse marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, stout, semiterete, 4 mm long, with a stout foot nearly as long.

ECUADOR: Prov. of Morona-Santiago: epiphytic in wet forest near Río Calagrás, alt. 1600 m, Apr. 1979, collected by A. Andreetta & M. Portilla, flowered in cultivation in Cuenca, 29 Sept. 1980, *C. Luer 5591* (Holotype: SEL); same locality, 19 Sept. 1980, *C. Luer, J. Luer, C. H. Dodson, A. Andreetta et al. 5506A* (SEL); same locality, flowered in cultivation at Colomborquídeas, Dec. 1989, *R. Escobar 4041* (JAUM, MO).

This species is apparently endemic in the forests of southeastern Ecuador where it was first collected by Padre Angel Andreetta and Mario Portilla along the Río Calagrás.

Dracula hirsuta is distinguished by a combination of features, not one of which is particularly remarkable. The leaves are long and narrow; the slightly cupped flower in densely pubescent within and heavily speckled with maroon; and the epichile of the white lip is ovoid and concave with erect, denticulate, non-involute margins, and with a few, tall, incomplete, undulating lamellae.

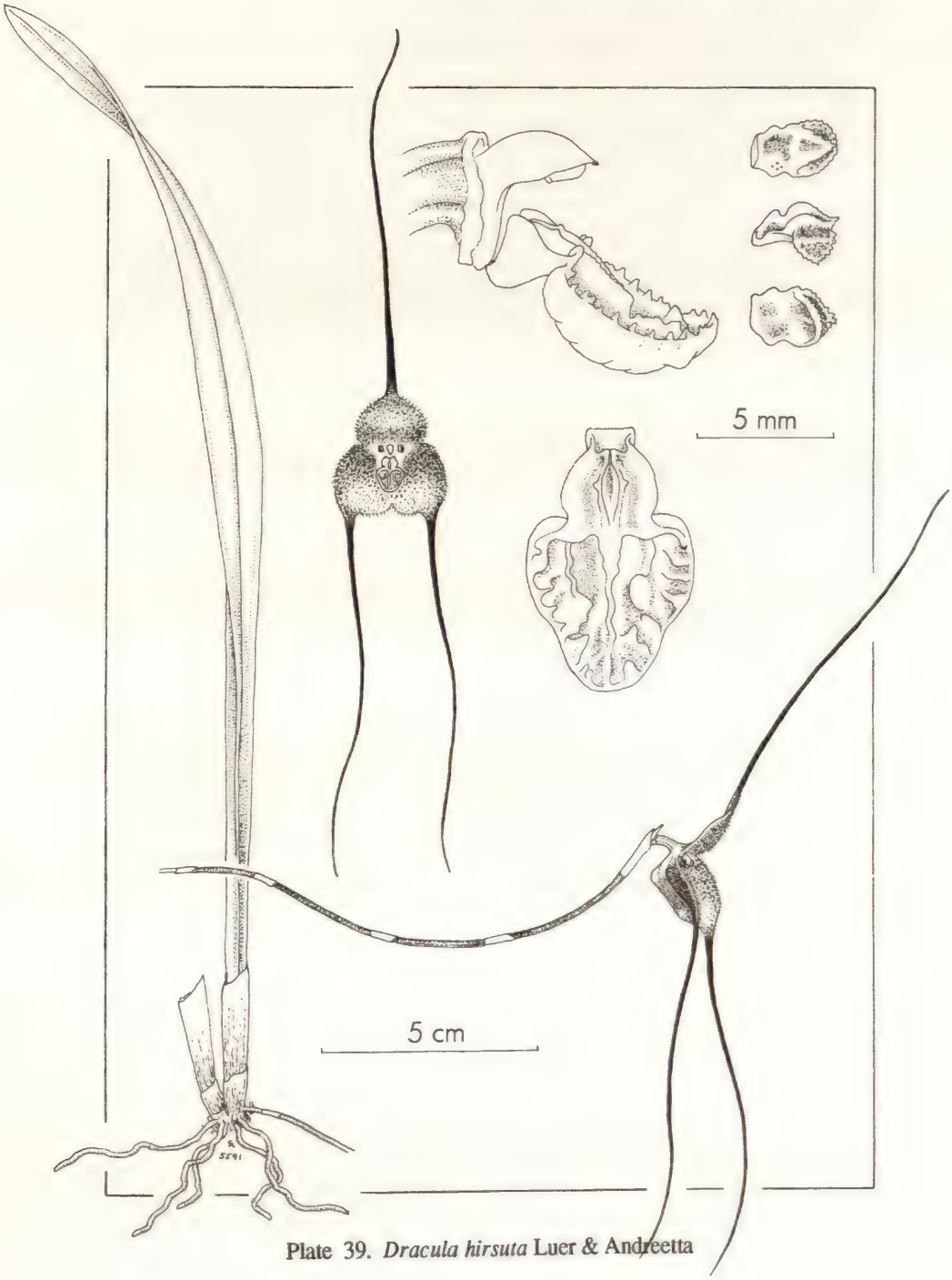


Plate 39. *Dracula hirsuta* Luer & Andreetta

Dracula hirtzii Luer, Orchid Digest 43: 38, 1979.

Ety.: Named in honor of Ing. Alexander C. Hirtz of Quito, Ecuador, who discovered this as well as numerous other new species of orchids.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls erect, stout, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, subplicate, elliptical, acute, 12-18 cm long including an indistinct, conduplicate petiole, 2-3.5 cm wide, gradually narrowed below to the base. **Inflorescence** a loose, successively few-flowered raceme, borne by a stout, horizontal to descending, sparsely bracted peduncle 10-20 cm long, from low on the ramicaul; floral bract tubular, 10-12 mm long; pedicel 20 mm long; ovary purple, 5-9 mm long, subverrucose, round in cross-section; **sepals** cream-colored, densely and diffusely dotted and suffused with dark red, glabrous, the dorsal sepal ovate, 32-40 mm long, 23-30 mm wide, connate to the lateral sepals for 8-10 mm to form a flat, widely spread flower, the apex acute, contracted into an erect, slender, red-purple tail 7-10 cm long, the lateral sepals ovate, oblique, 30-45 mm long, 23-28 mm wide, connate 20-25 mm into a broad, shallow mentum, the apices acute, contracted into tails 7-11 cm long, similar to that of the dorsal sepal; **petals** yellowish, marked with brown, cartilaginous, oblong-spathulate, 4 mm long, 2 mm wide, the apex obtuse, bivalvate, densely papillose between the laminae, the inner lamina denticulate, the outer lamina revolute; **lip** white, suffused with pink, spathulate, 10-15 mm long, 8-10 mm wide, the epichile suborbicular, 8-10 mm long, 8-10 mm wide, concave, with the margins denticulate, the lateral margins erect, not involute, the apex more or less inflated and slightly involute, the cavity with a primary carina flanked on either side by a lesser carina and multiple radiating veins, the hypochile oblong, 4-4.5 mm long, 3-3.5 mm wide, with erect, rounded, marginal angles, cleft centrally between a pair of small teeth, the concave base hinged to the column-foot; **column** yellowish white, stout, semiterete, 4-5 mm long, with a stout foot about as long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest between Nono and Mindo, alt. ca. 2000 m, collected by A. Hirtz, flowered in cultivation in Quito, 16 Feb. 1978, *C. Luer 2596* (Holotype: SEL); same area, alt. 1500 m, Aug. 1990, *A. Hirtz, X. Hirtz & J. Del Hierro 4927* (MO); west of Lloa, Río Cinto, alt. 1800 m, Nov. 1988, *A. Hirtz 3950* (MO); epiphytic in forest above Tandapi, alt. 1600 m, collected by A. Andreetta and A. Hirtz, flowered in cultivation at Paute, 24 May 1988, *C. Luer 13625* (MO). Prov. of Imbabura: epiphytic in forest of Selva Alegre, alt. 2000 m, collected by S. Dalström and M. Schrödl, flowered in cultivation 14 Mar. 1983, *C. Luer 8692* (SEL); between Otavalo and Selva Alegre, May 1989, *A. Hirtz & X. Hirtz 4229* (MO); same area, alt. 2100 m, 28 Feb. 1992, *S. Dalström et al. 1585* (MO). COLOMBIA: Dept. of Nariño: collected in the forest above the La Planada Biological Station near Ricaurte, alt. 1800 m, flowered in cultivation at the station, 25 Jan. 1987, *C. Luer 12513* (MO).

This species was first discovered on the western slopes of Mt. Pichincha by Alexander C. Hirtz. It has subsequently been found to occur as far north as southernmost Colombia.

The large habit with subplicate leaves and descending peduncles is similar to many species, but *D. hirtzii* is distinguished from them by the large, speckled flowers with essentially glabrous sepals. Occasionally very short, yellowish hairs can be seen on the lateral sepals. Typically, the flowers appear dark red from the numerous, coalescing dots of that color. The epichile of the flexibly attached lip is large with the lateral margins erect. The margins of the epichile of its relatives with which it can be confused, such as *D. chiroptera* or *D. vampira*, are distinctly involute.

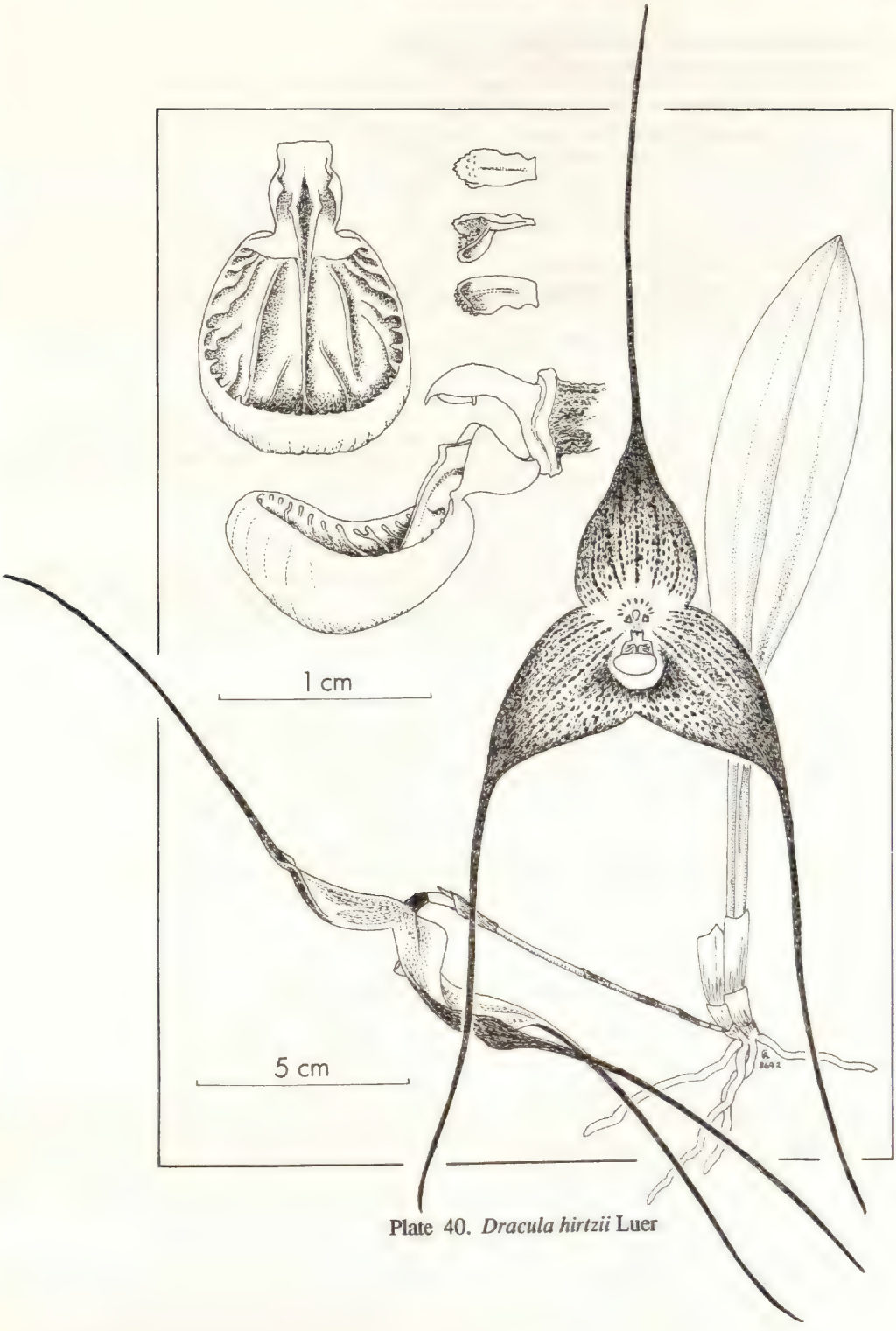


Plate 40. *Dracula hirtzii* Luer

Dracula houtteana (Rchb.f.) Luer, Selbyana 2: 195, 1978.

Bas.: *Masdevallia houtteana* Rchb.f., Gard. Chron. 2: 98, 1874.

Ety.: Named in honor of M. Van Houtte of Ghent, Belgium, "who entertained a very cordial friendship for his young countryman" Patin from whom he had received living plants.

Syn.: *Masdevallia callifera* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 77, 1920.

Ety.: From the Latin *callifer*, "callus bearing," referring to the labellum.

Syn.: *Masdevallia carderiopsis* Kränzl., Repert. Spec. Nov. Regni Veg. 17: 422, 1921.

Ety.: Named for the supposed similarity of the species to *M. carderi*.

Syn.: *Masdevallia carderi* var. *mosquerae* Lehm. & Kränzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 138, 1925.

Ety.: Named for Lehmann's wife, nee Mosquera.

Syn.: *Masdevallia mosquerae* Lehm. & Kränzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 138, 1925, in synonymy.

Syn.: *Dracula callifera* (Schltr.) Luer, Selbyana 2: 194, 1978.

Syn.: *Dracula carderiopsis* (Krzl.) Luer, Selbyana 2: 194, 1978.

Syn.: *Dracula mosquerae* (Lehm. & Krzl.) Luer, Selbyana 2: 196, 1978.

Plant medium in size, densely caespitose; roots slender. Ramicauls stout, erect, 2-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-obovate, acute, 10-30 cm long, 1-2.5 cm wide, narrowly cuneate below into the conduplicate base. **Inflorescence** a loose, successively 1- to 6-flowered raceme up to 5 cm long, sometimes produced in profusion, borne by a slender, purple, ascending to more or less horizontal or descending peduncle 8-15 cm long, from low on the ramicaul; floral bract tubular, 9-14 mm long; pedicel 10-25 mm long; ovary purple-brown, 5 mm long, lightly subverrucose, round in cross-section; **sepals** dull white, often suffused with orange, brown or purple toward the base within, often dotted with purple above the middle, densely pubescent within, more or less suffused with purple externally, the dorsal sepal transversely ovate, 10-16 mm long, 13-18 mm wide, connate to the lateral sepals for 6-9 mm to form a shallowly cupped flower, the apex broadly obtuse, abruptly contracted into a slender, dark purple tail 3-6 cm long, ca. 1 mm wide or less, the lateral sepals broadly ovate, oblique, 13-20 mm long, 12-14 mm wide, connate 10-18 mm to form a broad, shallow mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown or purple, cartilaginous, oblong, 3-4 mm long, 1.5-2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina obtuse, recurved; **lip** white, suffused with rose, spathulate, 5-6 mm long, 2.5-3.5 mm wide, the epichile ovoid, shallowly concave, 2.5-3 mm long, 3-3.5 mm wide, more or less lightly verrucose externally with the margins erect, minutely toothed, with a thick, more or less verrucose primary lamella flanked by a lesser lamella on either side, and a few incomplete fragments, the hypochile oblong, 2.5-3 mm long, 2-2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot nearly as long.

COLOMBIA: Dept. of Antioquia: Frontino, 4 July 1873, alt. 8000 ft., *G. Wallis 314* (Holotype: W), C. Luer illustr. 16551; "Medellín," *Patin s.n.* (W); "Medellín," *Boxall s.n.* (W); without locality, June 1880, *Kalbreyer 184* (W); Frontino, Alto de Cuevas, alt. 2000 m, collected by E. Valencia, 1980, flowered in cultivation at Colomborquídeas, Nov. 1981, *C. Luer 6546* (SEL); same collection, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13145* (MO); Urrao, alt. 2000 m, collected by E. Valencia, 16 Apr. 1985, flowered in cultivation at Colomborquídeas, 16 Apr. 1988, *C. Luer 13184* (MO); same area and collector, alt. 1800-2000 m, flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14087* (MO); La Ceja, near abandoned copper mine, alt. 2400 m, 16 Apr. 1988, *C. Luer, J. Luer, R. Escobar et al. 13193* (MO). Dept. of Cauca: without locality, *Madero s.n.* (type of *M. callifera*, presumably destroyed at B). Dept. of Chocó: San José del Palmar, collected by E. Valencia, flowered in cultivation by M. & O. Robledo at La Ceja, 25 Apr. 1988, *C. Luer 13312* (MO). Dept. of Risaralda: Pueblo Rico, Ciatocito, alt. 1800-2000 m, collected

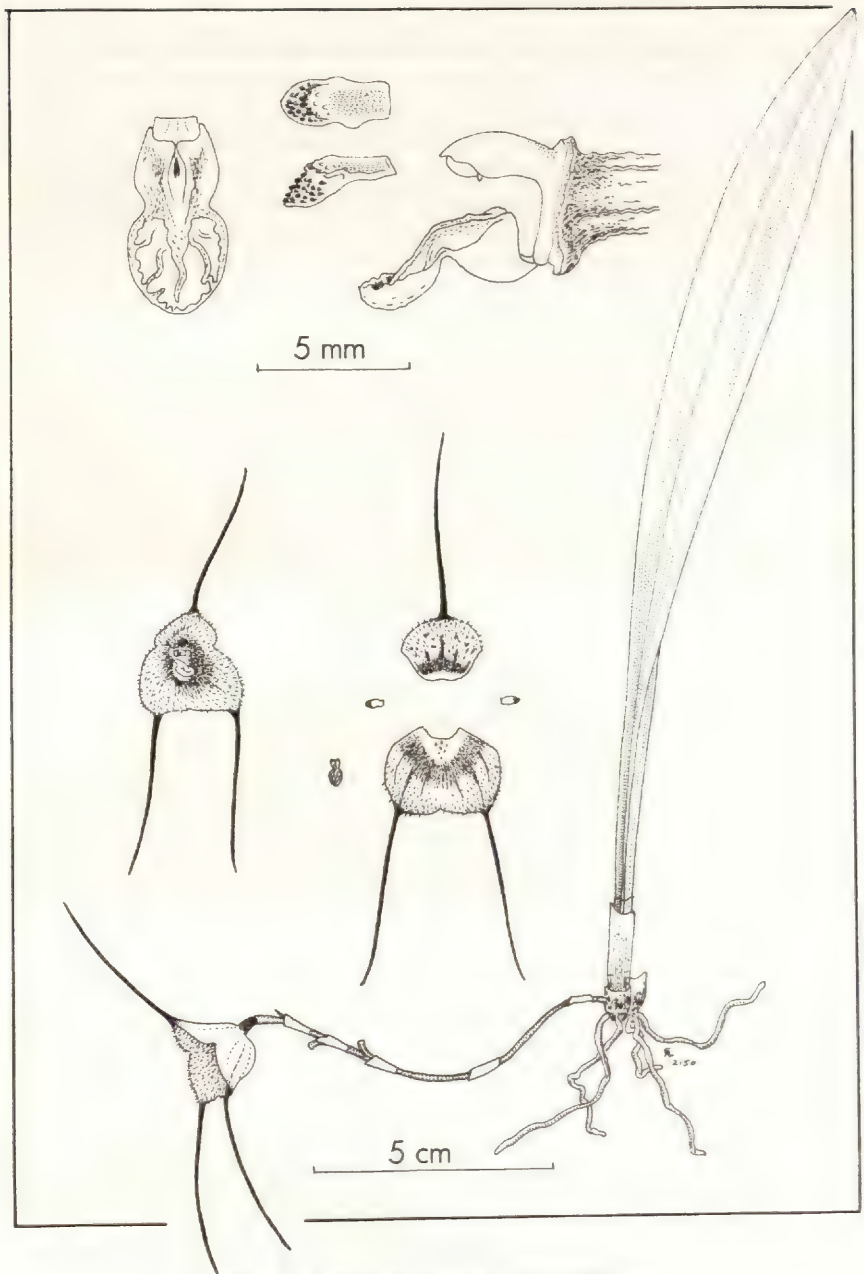


Plate 41. *Dracula houtteana* (Rchb.f.) Luer

by J.M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 17 Apr. 1989, *C. Luer 13205* (MO). Dept. of Tolima: : Río Cabrera, alt. 2100 m, 10 Jan. 1888, *F. C. Lehmann 2335* (BR, G, W, type of *M. carderiopsis*); collected 1991 by H. Angarita, flowered in cultivation at Colomborquídeas, Jan. 1993, *R. Escobar s.n.* (MO), C. Luer illustr. 16557.

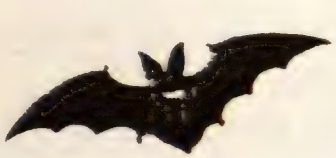
In his description of this species Reichenbach mentions that it might be one of Lalinde's discoveries, yet he cites receiving "lots of dried flowers" from Wallis collected near Frontino in the Western Cordillera of Colombia. He also mentions a photograph (still present in his herbarium) of a floriferous plant from Lalinde via Patin from which the illustration was made that was published in *Flore de Serres* 20: 87, t. 2106, 1874. *Dracula houtteana* is still found relatively frequently in this original area.

As treated here *D. houtteana* is a variable species-complex that contains several forms that appear superficially to be distinct, but without specific, morphological differences. All the forms are characterized by relatively small or medium-sized, more or less whitish flowers. In some forms the sepals are more colorful than in others. Toward their bases the white sepals are variously suffused with yellow, orange, brown or purple, while toward their apices they are often dotted with purple. Forms with pure white flowers occur. All the forms are shortly and densely pubescent within. Externally the sepals are usually veined or suffused with purple.

The usually pink lip is small. The epichile is shallowly concave with the central carina, that is more or less lightly verrucose, flanked on each side by a lesser carina and by several smaller or incomplete carinae. The thin, subdenticulate margin, about as high as the central carina, is not involute. The epichile is on the same plane as the hypochile, not deflexed as in *D. velutina*. In all these interrelated taxa the leaves are long and narrow. Unfortunately, intermediate forms grade into the broader-tailed *D. psittacina*, and the smaller-flowered *D. velutina*.

There is little doubt that this concept includes *D. callifera*, and the ill-defined *D. carderiopsis* and *D. mosquerae*. A re-hydrated flower of *D. carderiopsis* confirms its identity with *D. houtteana*. Schlechter described *D. callifera* from a collection by Madero from somewhere in the vague and vast region called "Cauca." At that time most of southern Colombia was included in "Cauca."

There are times when it is prudent to be a "lumper," and there are times when it is unwise. To determine which times are the right times can be exasperating. Having witnessed the phenomenon of the spontaneous appearance of numerous hybrids in open greenhouses in Colombia, we can assume that mixing of populations of similar taxa would occur in nature. Undoubtedly, genes are passed back and forth in all combinations. Therefore, we find it impractical to differentiate the swarm of "look alikes" that compose the super-species *D. houtteana*. To try to identify each of these similar, closely related taxa with a name would add to the confusion.



Dracula inaequalis (Rchb.f.) Luer & Escobar, Selbyana 7: 65, 1982.

Bas.: *Masdevallia inaequalis* Rchb.f., Gard. Chron. 1: 372, 1874.

Ety.: From the Latin *inaequalis*, "unequal," referring to a supposed inequality of the sizes of the sepals.

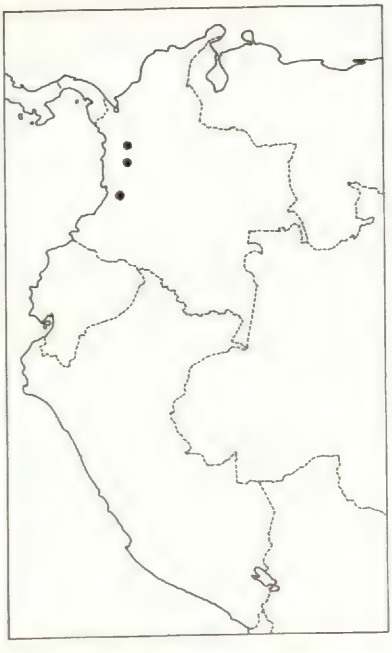
Syn.: *Masdevallia carderi* Rchb.f., Gard. Chron. 1: 784, 1883.

Ety.: Named in honor of Mr. Carder of Messrs. Shuttleworth, Carder & Co., of Clapham, England.

Syn.: *Dracula carderi* (Rchb.f.) Luer, Selbyana 2: 194, 1978.

Plant medium in size, epiphytic, densely caespitose; roots coarse. Ramicauls erect, 1-2.5 cm long, enclosed by 2-3 close, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 8-15 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.5-2 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme borne by a slender, purple, descending, sparsely bracted peduncle 4-7 cm long, from low on the ramicaul; floral bract tubular, 8-9 mm long; pedicel 8-13 mm long; ovary dark purple, with the 6 fringed wings green, 4 mm long, 4 mm wide; **sepals** dull white or cream-colored, spotted with purple-brown, the spots often coalescing in bands around the middle, densely short pubescent within and suffused with orange-brown around the middle, the dorsal sepal obovate, 15-17 mm long, 14-16 mm wide, connate to the lateral sepals for 10 mm to form a broad, cylindrical, sepaline cup, the obtuse apex contracted into a reflexed, yellowish, purple-spotted tail 7-30 mm long, the lateral sepals connate 13 mm into a subquadrate, concave lamina 13-16 mm long, 22-25 mm wide together and expanded, the transversely obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 3.5 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter, denticulate; **lip** white, flecked with pink, spathulate-pandurate, 5 mm long, 4 mm wide, the epichile transversely elliptical, 2.5 mm long, 4 mm wide, concave, lightly verrucose within, coarsely verrucose medially with the hypochile, the hypochile oblong, 3.5 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** cream, suffused with red, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Antioquia: without collection data, obtained from Patin, flowered in cultivation, 1874, at Paradise Nursery by *Mr. Williams s.n.* (Holotype: W); Frontino, flowered in cultivation with Shuttleworth, Carder & Co., 14 June 1883, *Carder s.n.* (Holotype of *M. carderi*: W); without locality, flowered in cultivation by M. & O. Robledo at La Ceja, 3 Oct. 1977, *C. Luer 1891* (SEL); without locality, collected by Hubein, flowered in cultivation by B. Würstle 1328 at Spielberg, Germany, 21 Sept. 1981, *C. Luer 6511* (SEL). Dept. of Chocó: Munic. of Carmen de Atrató, alt. 1100 m, collected by E. Valencia, flowered in cultivation at Colombor-quídeas, 25 Apr. 1988, *C. Luer 13309* (MO). Dept. of Valle de Cauca: Río Dagua, 10 May 1885, *F. C. Lehmann 4302* (G); same area, alt. 400-1000 m, Nov. 1877, *F. C. Lehmann 7001* (K, US); Río de las Sabaletas, alt. 1000-1200 m, July 1977, collected by M. de Navia, flowered in cultivation by M. & O. Robledo at La Ceja, 13 Mar. 1978, *R.Escobar s.n.* (JAUM); Loboguerrero, "La Pezuña," alt. ca. 1200-1500 m, collected by E. Valencia, Nov. 1984, flowered in cultivation by L. & J. Posada at Colombor-quídeas, 17 Nov. 1985, *R. Escobar 3672* (JAUM); 10 Apr. 1988, *C. Luer 13169* (MO). Without locality, purchased from an orchid vendor in Medellín, flowered in cultivation by Kenneth Holladay in Gilroy, CA, Nov. 1989, *C. Luer 14489* (MO).



A collection from the mountains near Frontino in the Western Cordillera of Colombia by Carder, the junior partner of Shuttleworth, Carder & Co., Clapham, England, flowered in 1883, and specimens were dispatched to Reichenbach. He honored its collector by naming it *Masdevallia carderi*. Today, this species is

familiar to many, because it is cultivated worldwide by numerous growers, professional and amateur alike. It was featured in the first fascicle of *Thesaurus Draculorum* in 1988.

This distinctive species is easily recognized by the broadly cylindrical, cuplike, white, sepaline tube, usually with a broad band of more or less coalescing, purple spots around the middle. In some forms the purple spots are very faint or absent. The size of the sepaline cup is also variable. According to Consul Lehmann, the flowers of this species found near Frontino have short tails, while those from farther south, west of Cali, have longer tails. The concave epichile of the lip is short and transverse, and microscopically verrucose within instead of carinate or lamellate.

In 1874, Reichenbach had described *Masdevallia inaequalis* in section "Triangulares" of *Masdevallia* from a fragment of a specimen sent to him from a Mr. Williams of Paradise Nursery, presumably near London. The plant had been received from Patin in Medellín, Colombia, who was known to have obtained many of his plants from nearby Frontino. Reichenbach had no vegetative parts to describe. His type-specimen today consists of only one poorly preserved flower, which he thought had been whitish in color. His sketch of the expanded sepals on the type-sheet does not indicate that the lateral sepals were twice smaller than the dorsal sepal as he described. He described the tips of the petals as muriculate, and he drew the lip as if it were severely desiccated.

The identity of *M. inaequalis* remained a mystery. We thought that it should be something found relatively frequently near Frontino in the Western Cordillera of Colombia, but we could find nothing from this area with which to associate the name. We learned that it belonged to the genus *Dracula*, as suspected, when the flower was hydrated by boiling at AMES in 1982, but we were unable to identify the specimen with any known species. Ten years later, the flower was again hydrated, this time in concentrated ammonia at W (Vienna). Now its identity finally becomes clear.

The flower of *D. inaequalis* is relatively small with the minutely pubescent sepals deeply connate into a cupped flower exactly like that of *D. carderi*. The ovary is also thick and costate-fringed. The petals, described as being muriculate at their tips, are now missing. The lip, although in very poor condition, is of the same size and shape as that of *D. carderi*. Together with the general locality, the appearance of the ovary, sepals, petals and lip, indicate that *D. inaequalis* is an earlier name for *D. carderi*. It was not possible for Reichenbach to have suspected that Carder's later collection was another of the same species he had already described as *M. inaequalis* from one poor flower.

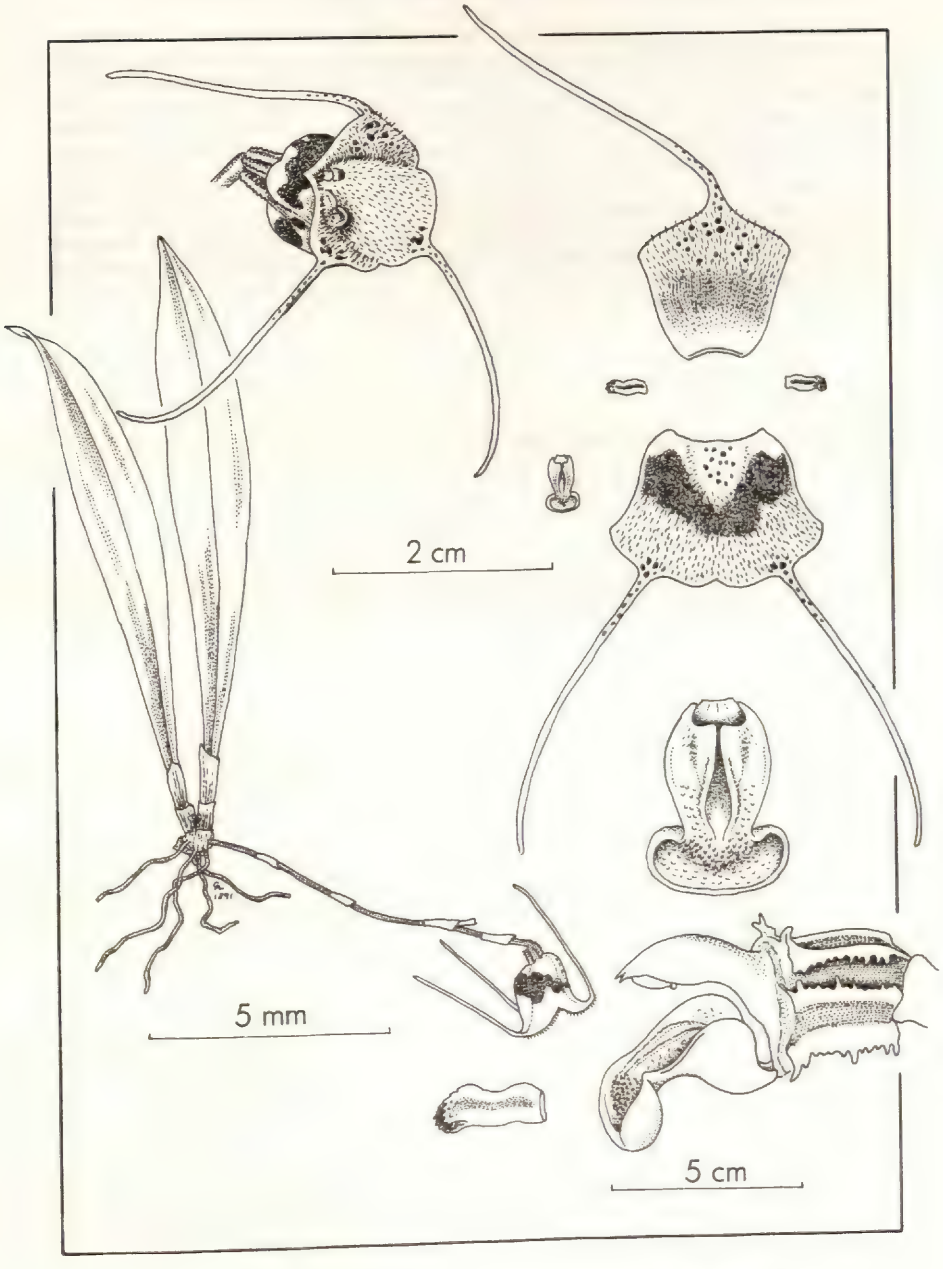


Plate 42. *Dracula inaequalis* (Rchb.f.) Luer & Escobar

Dracula incognita Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1006, 1989.

Ety.: From the Latin *incognitus*, "unknown," referring to the absence of collection data.

Plant small, epiphytic, densely caespitose; roots slender. Ramicauls erect, slender, 2-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 10-20 cm long, the blade narrowly elliptical-linear, acute, 1.2-1.4 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, erect peduncle 9-11 cm long, with a several, distant bracts, from low on the ramicaul; floral bracts 10 mm long; pedicels 10 mm long; ovary minutely verrucose, 5 mm long; **sepals** white with a minute, purple pubescence, appearing lavender in color, suffused with rose near the base, the dorsal sepal broadly ovate, 11 mm long, 13 mm wide, connate to the lateral sepals for 5 mm to form widely spread, downward facing flower, the apex obtuse or rounded, abruptly contracted into a slender, erect, dark purple tail 20 cm long, the lateral sepals ovate, oblique, 13 mm long, connate 10 mm into a lamina 20 mm wide with broad, shallow mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** light yellow, marked with purple-brown, cartilaginous, oblong, 2.5 mm long, 1 mm wide, the apex rounded, denticulate, bivalvate, papillose between the laminae, the inner lamina recurved, denticulate; **lip** rose with the center yellow, thick, pyriform, 6 mm long, 3.5 mm wide, the epichile shallowly concave, 2.5 mm long, 3.5 mm wide, with 3 low carinae, and several short, marginal lamellae, the hypochile oblong, 3.5 mm long, 2 mm wide, with erect, acute, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** light yellow, semiterete, 3.5 mm long, the apex minutely bifid, the foot stout, 3 mm long.

COLOMBIA: Dept. of Antioquia: without collection data, probably collected by Dr. Alberto Villegas H., flowered in his collection near Fitzebad, 12 Mar. 1989, *R. Escobar 4008* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 14122.

This species was discovered flowering in the collection of Dr. Alberto Villegas in Fitzebad in the mountains above Medellín. He believes that he probably found the plant in nearby forests in Antioquia, but he cannot be certain. To date, it has neither occurred in other collections nor has it been found again.

Superficially, *D. incognita* resembles *D. iricolor* with the small, lavender, nutant, short-tailed flower borne by an erect peduncle. However, the caespitose habit and carinate lip of *D. incognita* immediately separate the two species. The lavender color of the sepals is produced by a blanket of short, purple hairs on a white background.

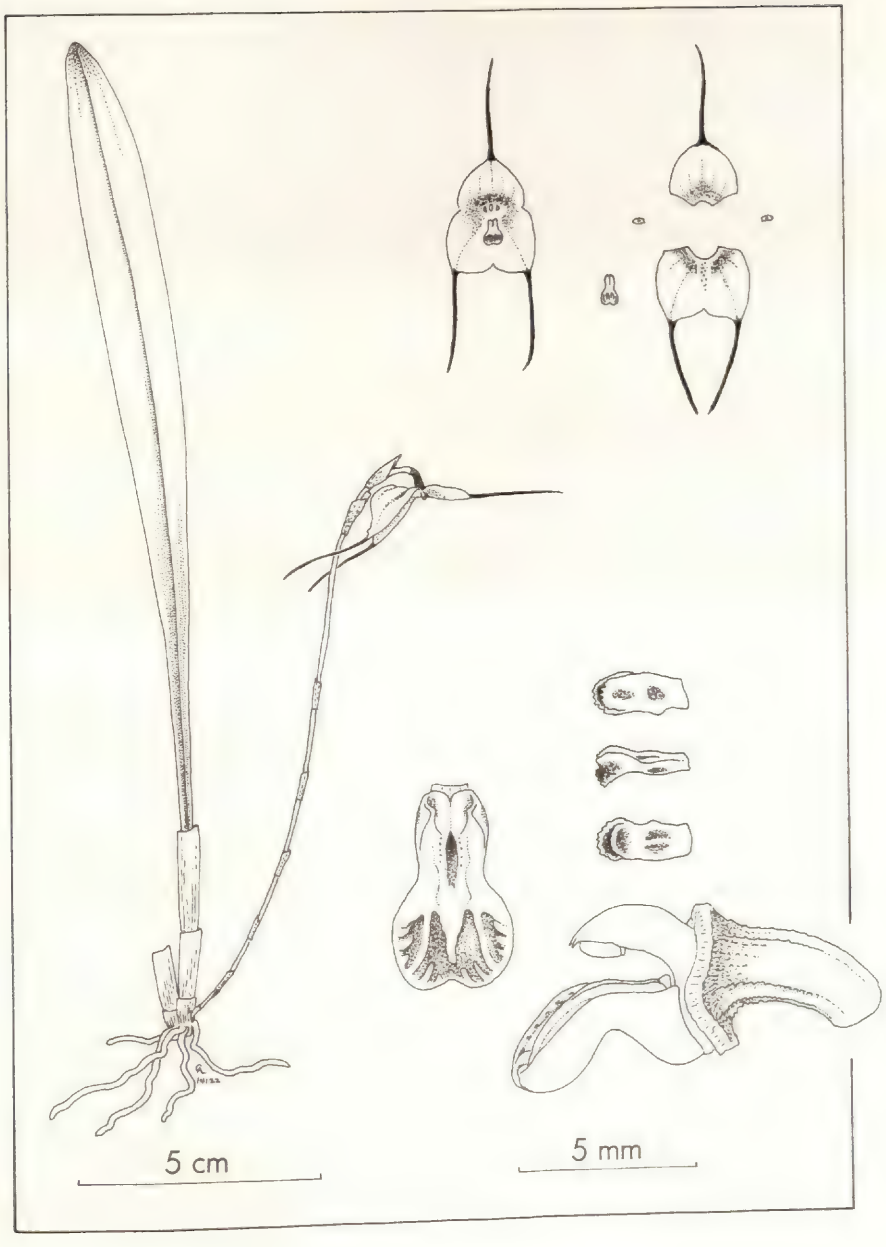


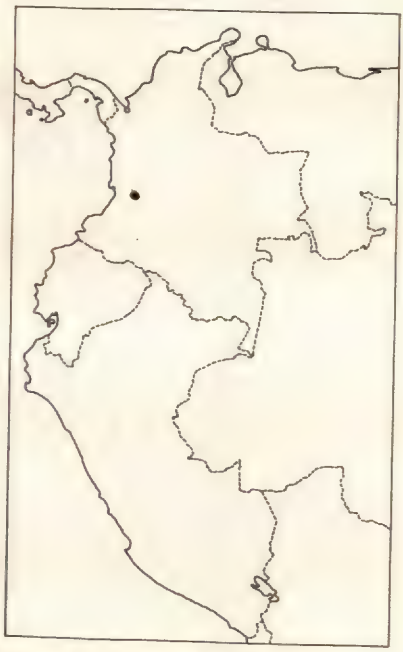
Plate 43. *Dracula incognita* Luer & Escobar

Dracula insolita Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1007, 1989.

Ety.: From the Latin *insolitus*, "strange," referring to the unusual lip and apex of the column-foot.

Plant large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 13-22 cm long including an indistinct petiole, the blade narrowly elliptical, acute, 1.9-2.7 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a loose, successively 2- to 3-flowered raceme up to 5 cm long, borne by a slender, erect peduncle 15-17 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 15-17 mm long; pedicels 18-23 mm long; ovary subverrucose, 7 mm long; **sepals** green, glabrous, diffusely covered by raised brown spots within, the dorsal sepal ovate, 26 mm long, 16 mm wide, connate to the lateral sepals for 4 mm to form a cupped, nodding flower, the apex acute, contracted into a slender, green tail 2.5 cm long, the lateral sepals ovate, oblique, 27 mm long, 13 mm wide, connate 21 mm into a narrow mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, oblong, 3 mm long, 1 mm wide, the apex rounded, shallowly bivalvate, subpapillose between the laminae; **lip** rose, spotted with darker rose, thick, pyriform, 11 mm long, 5.5 mm wide, the epichile indistinctly demarcated from the hypochile, broadly truncate, the surface flat, very slightly undulate, the hypochile 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base connected to the column-foot; **column** light yellow, semiterete, 3.5 mm long, the foot stout with the apex free and elongated, 2 mm long.

COLOMBIA: Dept. of Valle del Cauca: epiphytic in forest between Costa Rica and Ginebra, alt. 1800-1900 m, collected by J. Miranda, Jr., Jan. 1988, flowered in cultivation at Colomborquídeas, 14 Jan. 1989, *R. Escobar 3992* (Holotype: JAUM; Isotype: MO), flowered in cultivation 12 Mar. 1989, C. Luer illustr. 14124; same locality, collected by J. L. Aguirre, Oct. 1989, flowered in cultivation at Colomborquídeas, 11 Dec. 1989, *R. Escobar 4042* (JAUM)



This recently discovered long, narrow-leaved species is apparently endemic in a remote valley in southern Colombia. A member of section *Dodsonia*, the drooping, only half-open flowers borne by an erect peduncle, are green but covered within by numerous, tiny, raised dots. The petals are very small. The lip is very thick and pyriform in shape. The poorly defined epichile is essentially featureless except for some very indistinct grooves suggesting faint markings of vestigial lamellae. Most unusual is the elongate, free extension of the column-foot, reminiscent of the foot seen in the genus *Masdevallia*.

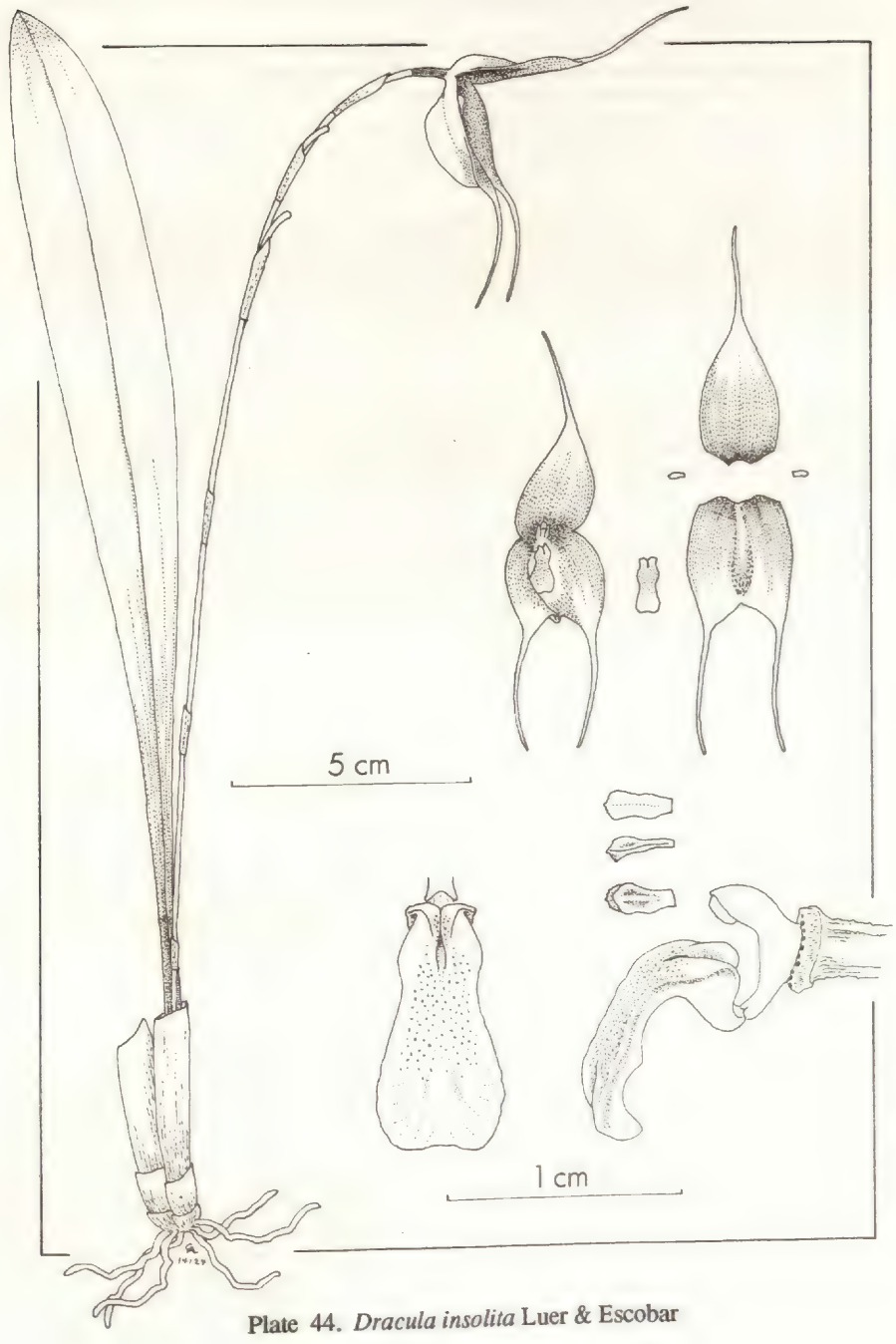


Plate 44. *Dracula insolita* Luer & Escobar

Dracula iricolor (Rchb.f.) Luer & Escobar, Selbyana 7: 65, 1982.

Bas.: *Masdevallia tricolor* Rchb.f., Gard. Chron. 2: 108, 1882, *sphalmate* for *M. iricolor*, not *M. tricolor* Rchb.f., 1849.

Ety.: From the Latin *iricolor*, "rainbow-colored," referring to the colors of the flowers.

Syn.: *Masdevallia trichroma* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 6: 57, 1919.

Ety.: From the Greek *trichroma*, "tricolored," translating the Latin *tricolor*," the specific epithet.

Syn.: *Masdevallia quilichaoënsis* Lehm. & Kränzl., Kew Bull. 110, 1925, as *quiliehaoënsis*.

Ety.: Named for the region of Quilichao, Colombia, where the plant was collected.

Syn.: *Dracula quilichaoënsis* (Lehm. & Kränzl.) Luer, Selbyana 2: 197, 1978.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 10-18 cm long including an indistinct petiole 2-4 cm long, the blade narrowly elliptical, acute, 1.2-1.8 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a successively few-flowered raceme, borne by an erect, slender, sparsely bracted peduncle 15-20 cm long, from low on the ramicaul; floral bract tubular, 13-15 mm long; pedicel 10-12 mm long; ovary purple, 4-5 mm long, subverrucose, round in cross-section; **sepals** pale red-lilac, the inner surface microscopically glandular-cellular, the dorsal sepal ovate, 13 mm long, 9 mm wide, connate to the lateral sepals for 2 mm to form a widely spread flower, the apex obtuse, contracted into a slender, erect, dark purple tail 9 mm long, the lateral sepals obliquely ovate, obtuse, 14 mm long, 8 mm wide, connate 8 mm into a bifid lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal, 7-8 mm long; **petals** white, marked with dark purple, cartilaginous, oblong, 3 mm long, 1 mm wide, the apex round, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** white with pink dots, obovate, 5.5 mm long, 3.25 mm wide, the epichile suborbicular, flat to minimally convex, 4 mm long, 3.25 mm wide, the hypochile oblong, 1.5 mm long, 1.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, semiterete, 3 mm long, with a stout foot 2 mm long.

COLOMBIA: Dept. of Antioquia: "Medellín," *Roezl s.n.* (Holotype: W); "Medellín," *Wallis s.n.* (W); without locality, *Carder s.n.* (W); Munic. of Jardín: road to Alto de Ventanas, alt. 2550 m, 25 May 1983, *R. Escobar, L. & J. Posada et al. 2681* (JAUM); El Chuzcal, alt. 2400 m, collected by E. Valencia, 1985, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13156* (MO). Dept. of Cauca: Santander de Quilichao, Río Ambaló, alt. 2000 m, 5 Mar. 1883, *F. C. Lehmann 2667* (holotype of *M. quilichaoënsis*: K; isotypes: BM, BR, G, MO). Dept. of Risaralda: Munic. of Pueblo Rico: Alto de la Linea, alt. 1990 m, 17 Oct. 1972, collected by R. Escobar, M. & O. Robledo et al., flowered in cultivation by M. & O. Robledo at La Ceja, 14 May 1973, *R. Escobar 425* (JAUM); same collection, flowered in cultivation at Colomborquídeas, 12 Mar. 1989, *C. Luer 14128*. Dept. of Putumayo: east of San Francisco, alt. 2800 m, collected by H. Volles, flowered in cultivation at Túquerres, 30 Jan. 1987, *C. Luer 12551a* (MO).

ECUADOR: Prov. of Carchi: above Maldonado, alt. ca. 2000 m, 26 Aug. 1978, *C. Luer, J. Luer & A. Hirtz 3384* (SEL); same area, alt. 2500 m, 24 Feb. 1992, *S. Dalström et al. 1547* (MO). Prov. of Pichincha: above Tandapi, alt. 1900 m, collected by A. Andreetta and A. Hirtz, flowered in cultivation by Andreetta at Paute, May 1988, *C. Luer 13628* (MO).

When this species was described by Reichenbach, a typographical error produced *Masdevallia tricolor* instead of *Masdevallia iricolor*. Reichenbach had published the binomial *Masdevallia tricolor* in 1849 for a species of *Masdevallia*, which is not a *Dracula*. Believing Reichenbach to have published a later homonym, Schlechter proposed *M. trichroma* in 1919 for the *M. tricolor* of 1882.

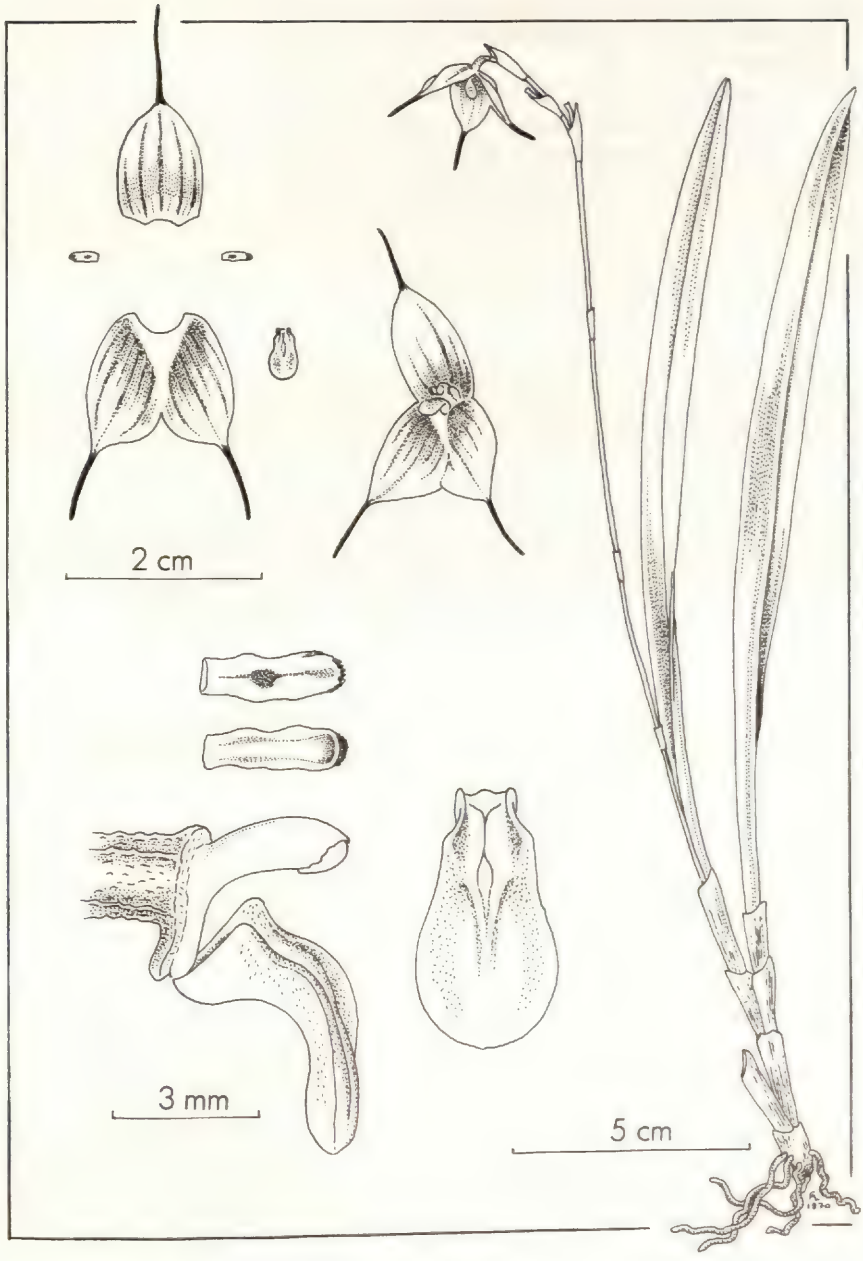


Plate 45. *Dracula iricolor* (Rchb.f.) Luer & Escobar

In his monograph of the genus *Masdevallia* Kränzlin redescribed Reichenbach's *M. iricolor* posthumously, believing it to be still un-published. Only months before, Kränzlin had redescribed the species as *M. quilichaoënsis* from a collection by Lehmann, and in his monograph he placed the two epithets for the same species in two different sections.

Dracula iricolor is local but widely distributed in the Western Cordillera of Colombia to northwestern Ecuador. It is easily recognized by the ascending habit with erect peduncles with small, pale lavender, short-tailed flowers that face downward. The epichile of the lip is smooth and convex.

Dracula janetiae (Luer) Luer, Selbyana 2: 195, 1978.

Bas.: *Masdevallia janetiae* Luer, Phytologia 39: 207, 1978.

Ety.: Named in honor of Janet Kuhn who discovered this species.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 8-13 cm long including the petiole 3-4 cm long, the blade narrowly elliptical, acute, 1.5-2 cm wide, the base gradually narrowed into the channeled petiole. **Inflorescence** a successively few-flowered raceme, borne by a purple, horizontal to descending, slender, sparsely bracted peduncle 7-10 cm long, from low on the ramicaul; floral bract tubular, 5-7 mm long; pedicel 8-10 mm long; ovary purple, 4 mm long, 4 mm wide, with 6 green, denticulate crests; **sepals** pale yellow, irregularly dotted with purple, shortly spiculate-pubescent within, the dorsal sepal triangular, 15 mm long, 11 mm wide, connate to the lateral sepals for 4 mm to form a widely spread, flat flower, the apex acute, contracted into a slender, erect, yellow tail ca. 3 cm long, the lateral sepals obliquely ovate-triangular, obtuse, 15 mm long, 15 mm wide, connate 14 mm into a transversely oblong lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with purple, cartilaginous, oblong, 5 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** white with pink dots on the hypochile, spathulate, 6.5 mm long, 6 mm wide, the epichile orbicular or slightly transversely ovate, flat to minimally concave, 4 mm long, 6 mm wide, covered within by minute, pink verrucae, the hypochile oblong, 4 mm long, 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** cream, semiterete, 4.5 mm long, with a stout foot 3 mm long.

PERU: Dept. of Huánuco: epiphytic in forest between Tingo Maria and Pucallpa, alt. ca. 1700 m, March 1975, collected by Janet Kuhn, flowered in cultivation at J & L Orchids, Easton, CT., 9 Nov. 1977, *C. Luer 2137* (Holotype: SEL); same collection, flowered in cultivation by L. & J. Posada at Colomborquídeas, 1985, *R. Escobar 3496* (JAUM).

This species was discovered by Janet Kuhn while on a collecting trip to Peru led by the late Fred Fuchs, Jr. It is the only species of *Dracula* known from Peru.

In habit and appearance of the flower with the sepals diffusely speckled with red-brown, *Dracula janetiae* is similar to both *D. nycterina* and *D. vespertilio*. *Dracula janetiae* is readily distinguished from these two by the flat, round, minutely verrucose epichile of the lip. The concave epichile of *D. nycterina* is lamellate while that of *D. vespertilio* is completely smooth.

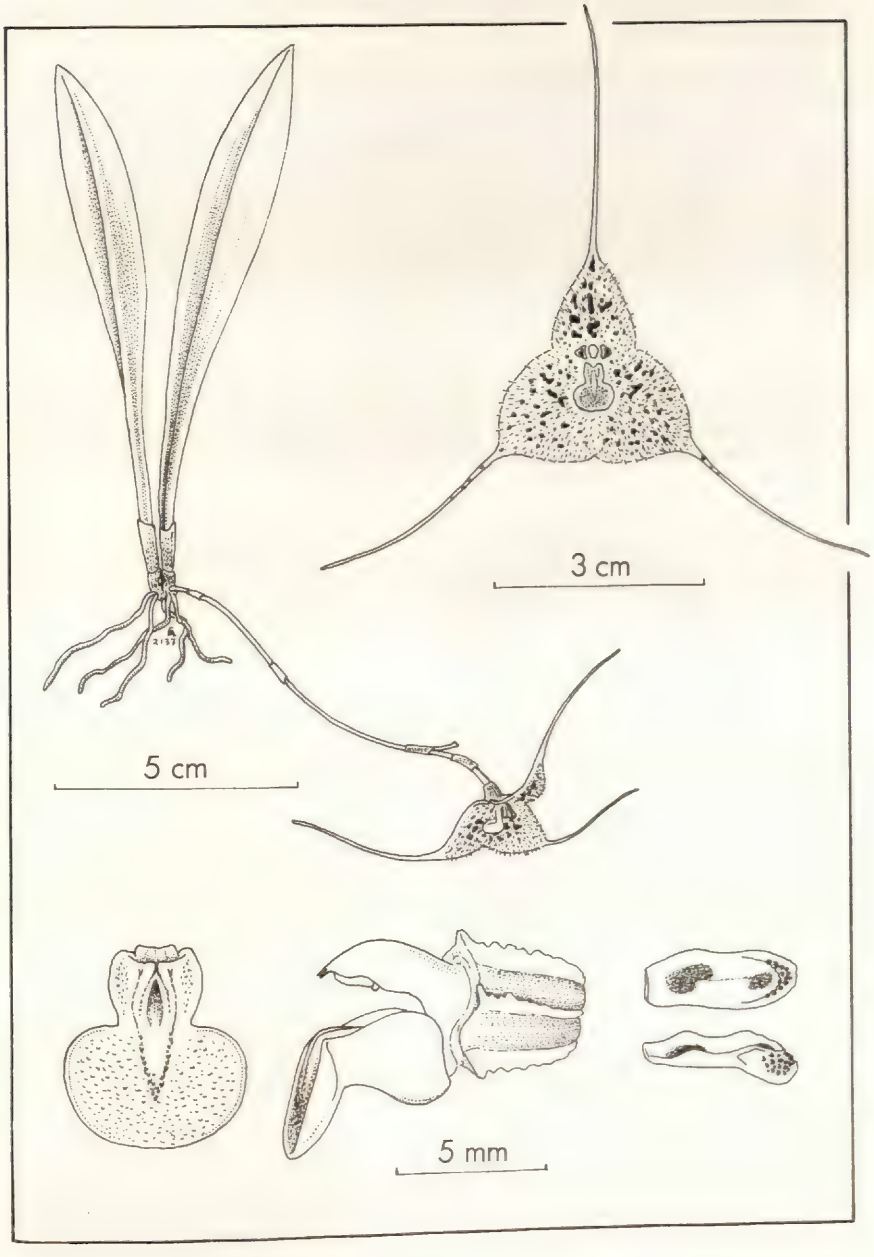


Plate 46. *Dracula janetiae* Luer

Dracula lafleurii Luer & Dalström, sp. nov.

Ety: Named in honor of Rolf La Fleur of Stockholm, Sweden, co-discoverer of this species.

Species haec *Draculae woolwardiae* (Lehm. ex Krzl.) Luer affinis, sed labelli epichilio suborbiculari profunde concavo distinguitur.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 4-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 15-19 cm long including an indistinct petiole 2-3 cm long, 2.5-3 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a horizontal to descending, sparsely bracted peduncle 14-19 cm long, from low on the ramicaul; floral bract, tubular, oblique, 10-15 mm long; pedicel 15-25 mm long; ovary 5 mm long, round in cross-section; **sepals** dull white, yellowish toward the base, with coalescing, red-brown spots, especially toward the apices and bases, with a long, white pubescence within, the dorsal sepal broadly ovate, 25 mm long, 21 mm wide, connate to the lateral sepals for 7-8 mm to form a slightly cupped, widely spread flower, the apex subacute, contracted into a slender, erect, red-brown tail 8-9 cm long, the lateral sepals ovate, oblique, 30 mm long, 23 mm wide, connate 12-13 mm into a broad lamina with a shallow mentum, the apices acute, contracted into tails similar to that of the dorsal sepal; **petals** white, marked with red-brown, cartilaginous, oblong, 3 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** pink, spathulate, 11.5 mm long, 9 mm wide, the epichile transversely subglobose, inflated, deeply concave, 7.5 mm long, 9 mm wide, 6 mm deep, filled with dark pink, radiating, branching lamellae, the hypochile suboblong, 4 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally between a pair of plates, the concave base hinged to the column-foot; **column** yellow, stout, semiterete, 4 mm long, with a stout foot equally long.

ECUADOR: Prov. of Imbabura: epiphytic in wet forest in the Los Cedros reserve, alt. 1450 m, 27 Jan. 1993, *S. Dalström, T. Höijer, H. Wanntorp & M. Read 1815* (Holotype: MO), C. Luer illustr. 16589; above Garcia Moreno, alt. 1800 m, 1 Mar. 1992, *S. Dalström, R. La Fleur & J. Sönnemark 1594* (MO), same collection, flowered in cultivation by R. La Fleur, July 1992, *S. Dalström 1692* (MO).

This species was discovered in 1992 in a remote, wet, primary forest in northwestern Ecuador by a team of Swedish botanical researchers led by Stig Dalström. Plants flowered in cultivation in the collections of Rolf La Fleur in Stockholm and Jan Sönnemark in Halmstad, Sweden, later that year. The species was discovered again in two other, nearby localities in 1993. It grows in the same forest with several other species of *Dracula* including *Dracula woolwardiae* to which it is most similar. Colonies of the two species were noted to grow separately without intermediate individuals.

Dracula lafleurii is distinguished by the relatively large flowers with long-tailed, acute sepals densely spotted with rust brown, especially toward the apices and bases. The sepals are also long-pubescent within. The pink suborbicular epichile of the lip is most distinguishing. The deeply saccate cavity contains several radiating, branching, darker pink lamellae that curve up to the thin margin as tiny teeth.

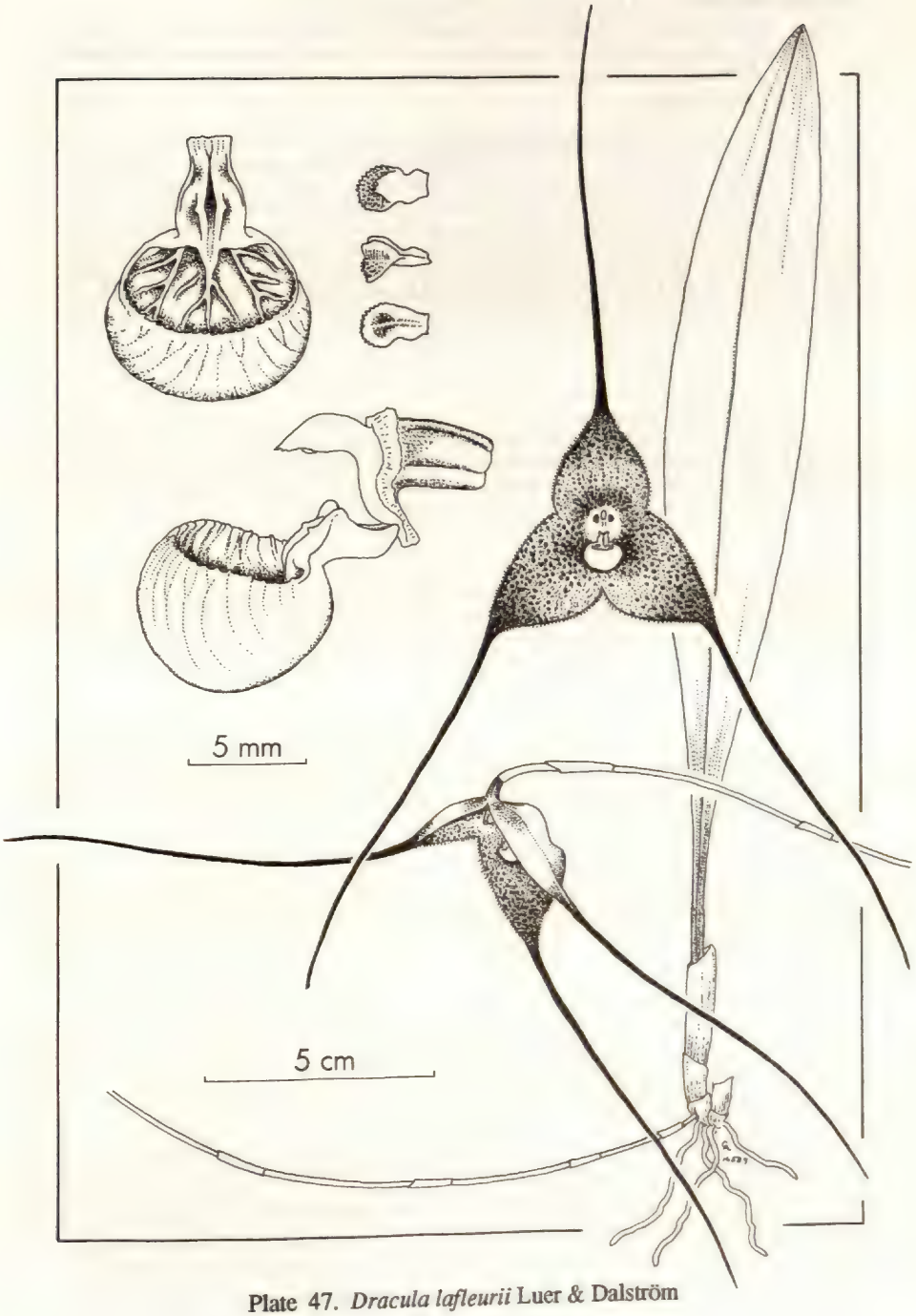


Plate 47. *Dracula lafleurii* Luer & Dalström

Dracula lehmanniana Luer & Escobar, Selbyana 7: 66, 1982.

Ety.: Named in honor of Frederick Carl Lehmann (1850-1903), German Consul in Popayán, Colombia, mineral prospector and orchidologist noted for his color paintings and extensive collections of plants and herbarium specimens numbering more than 10,000 from Colombia, Ecuador and Central America.

Plant medium-sized to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 4-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, more or less plicate, elliptical, acute, 15-25 cm long including an indistinct petiole, 3.5-5 cm wide, gradually narrowed below into the subpetiolate, conduplicate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a sparsely bracted peduncle 30-35 cm long, at first horizontal, then ascending to erect, from near the base of the ramicaul, the flowers held horizontally facing downward; floral bract tubular, 15 mm long; pedicel arcuate, 2.5 cm long; ovary green, 5 mm long, subverrucose, round in cross-section; **sepals** yellowish, diffusely dotted with brown, especially toward the base, cellular-glandular within, the dorsal sepal narrowly ovate, ca. 25 mm long, 10 mm wide, connate to the lateral sepals for 3 mm to form a flat flower, the apex acute, attenuated contracted into a slender, horizontal, purple-brown tail ca. 5 cm long, the lateral sepals narrowly ovate, oblique, ca. 25 mm long, 11 mm wide, connate 9 mm into a narrow, shallow mentum, the apices acute, attenuated into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong, 2.5 mm long, 1.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina rounded, recurved; **lip** white, spathulate, 8 mm long, 5 mm wide, the epichile suborbicular, concave, 5 mm long, 5 mm wide, the margins erect, multidenticulate, the rounded apex slightly dilated and incurved, with a central, branching carina and numerous radiating, raised veins to either side, the hypochile oblong, 25 mm long, 2.25 mm wide, with rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow, stout, semiterete, 3.5 mm long, with a stout foot equally long.

COLOMBIA: Prov. of Cauca: El Tambo, Huisitó, alt. ca. 1800 m, 1977, collected by J. Miranda, flowered in cultivation by A. Lehmann de Sarria in Popayán, 25 July 1978, *C. Luer 2982* (Holotype: SEL), flowered in cultivation by M. & O. Robledo at La Ceja, 20 Nov. 1978, *R. Escobar 1902* (JAUM); flowered at Colomborquídeas, 11 Apr. 1988, *C. Luer 13161* (MO).

This species is known from only two plants collected in southwestern Colombia near Popayán in 1977 by the professional collector J. Miranda. The plants were cultivated in Popayán by the late Sra. Amalia Lehmann de Sarria, granddaughter of Consul F. C. Lehmann, in her extensive orchid collection.

The slender, widespread flower with narrow, outstretched sepals and tails is borne more or less transversely by the erect, terminal portion of the ascending peduncle to face downward with the white lip dangling from the center. The flowers are extremely sensitive to an increase in temperature or a decrease in humidity. The sepals begin to wilt immediately if the plant is moved from a dark area to a lighter area, as was witnessed when an attempt was made to photograph the flower. The sepals soon dangle limply along the supporting peduncle, but they slowly regain their original turgor when the plant is returned to the cool shade. The turgidity is regained immediately if the flower is immersed in cold water.

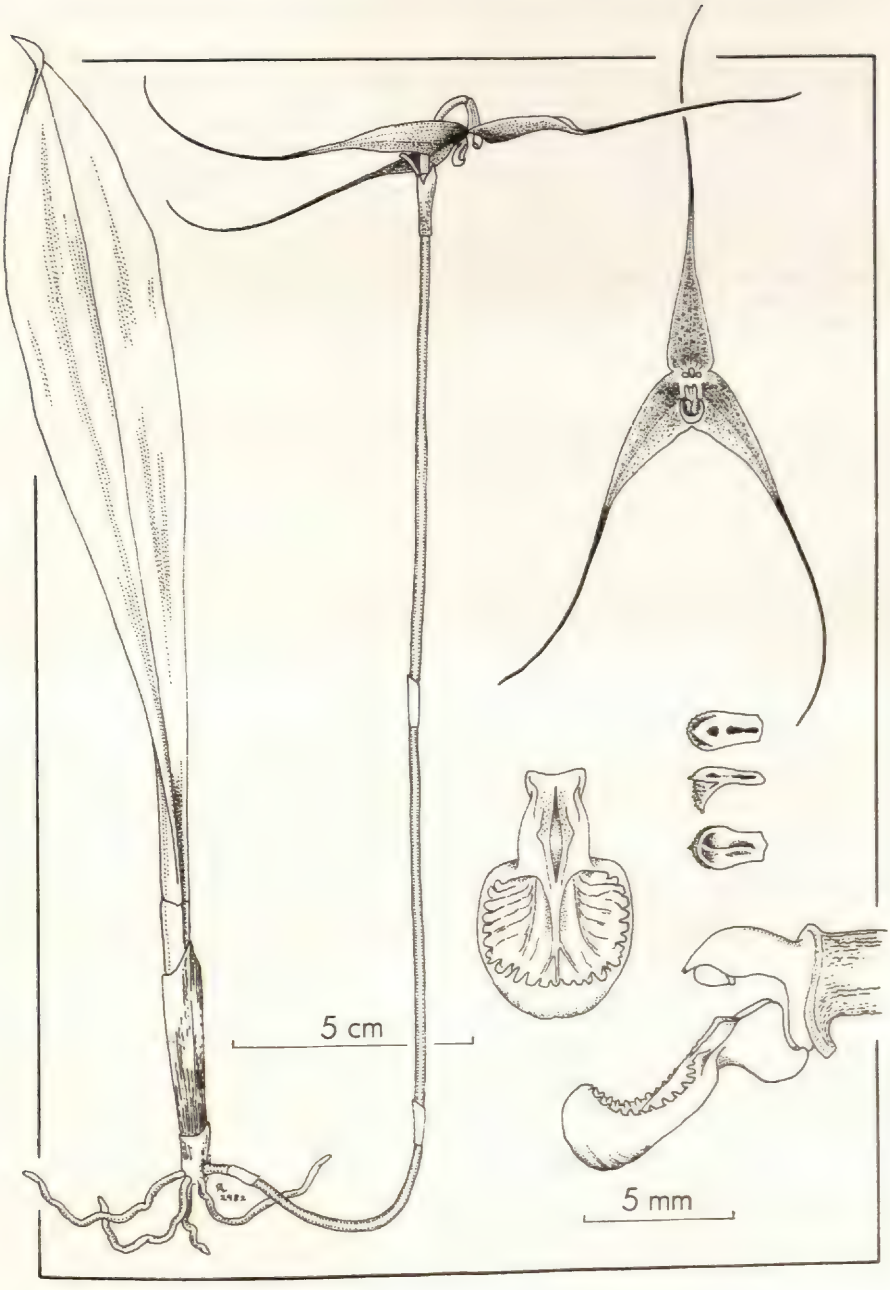


Plate 48. *Dracula lehmanniana* Luer & Escobar

Dracula lemurella Luer & Escobar, Orquideología 15: 23, 1981.

Ety.: From the Latin *lemurella*, "a little ghost," in allusion to the ghostlike face seen in the flower.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls stout, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly ovate to linear, acute, 11-17 cm long including an indistinct petiole, 1-1.5 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a lax, successively 1- to 2-flowered raceme, borne by a slender, sparsely bracted, more or less horizontal peduncle 5-8 cm long, from low on the ramicaul; floral bract, tubular, 6-8 mm long; pedicel 7-11 mm long; ovary brown, 4 mm long, subverrucose, round in cross-section; **sepals** cream-colored, densely dotted with brown below the middle, shortly pubescent within, the dorsal sepal broadly ovate, to orbicular, 9-10 mm long, 10-12 mm wide, connate to the lateral sepals for 4 mm to form a widely spread flower, the obtuse apex contracted into a slender, erect, red-purple tail 2.5-3.5 cm long, the lateral sepals broadly ovate, oblique, 11-12 mm long, 11-13 mm wide, connate 5 mm into a broad, shallow mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream-colored, marked with brown, cartilaginous, oblong, 3.5 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, the outer lamina rounded, recurved; **lip** white, dotted with pink, oblong-subpandurate, 4.5 mm long, 3 mm wide, the epichile transversely ovate, obtuse, 2 mm long, 3 mm wide, shallowly concave with a tall, thick, verrucose callus extending out from the hypochile, and with one incomplete lamina on either side, verrucose externally, the hypochile thick, oblong, 3 mm long, 3 mm wide, with erect, rounded, marginal angles, broadly and deeply cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 3.5 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. of Antioquia: Munic. of Yarumal, Briceño, "El Oro," La Segunda Bodega, alt. 1650 m, 26 Nov. 1974, collected by G. Misas et al., flowered in cultivation at La Ceja by M.& O. Robledo, 27 Sept. 1977, *R. Escobar 1540* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 1850; flowered in cultivation at Colomborquídeas, 25 Apr. 1988, *C. Luer 13298* (MO).

This uncommon species has been found on only a few occasions, the first time by Dr. Guillermo Misas, Rodrigo Escobar and companions in 1974. It is recognized by the small caespitose habit with narrow leaves and short, more or less transverse peduncles. The small, successive, cream-colored flowers are shortly pubescent within. The transversely ovate, shallow epichile of the very small, distinctive lip contains three tall, protruding lamellae. The epichile is smaller than the hypochile which is deeply and broadly cleft.

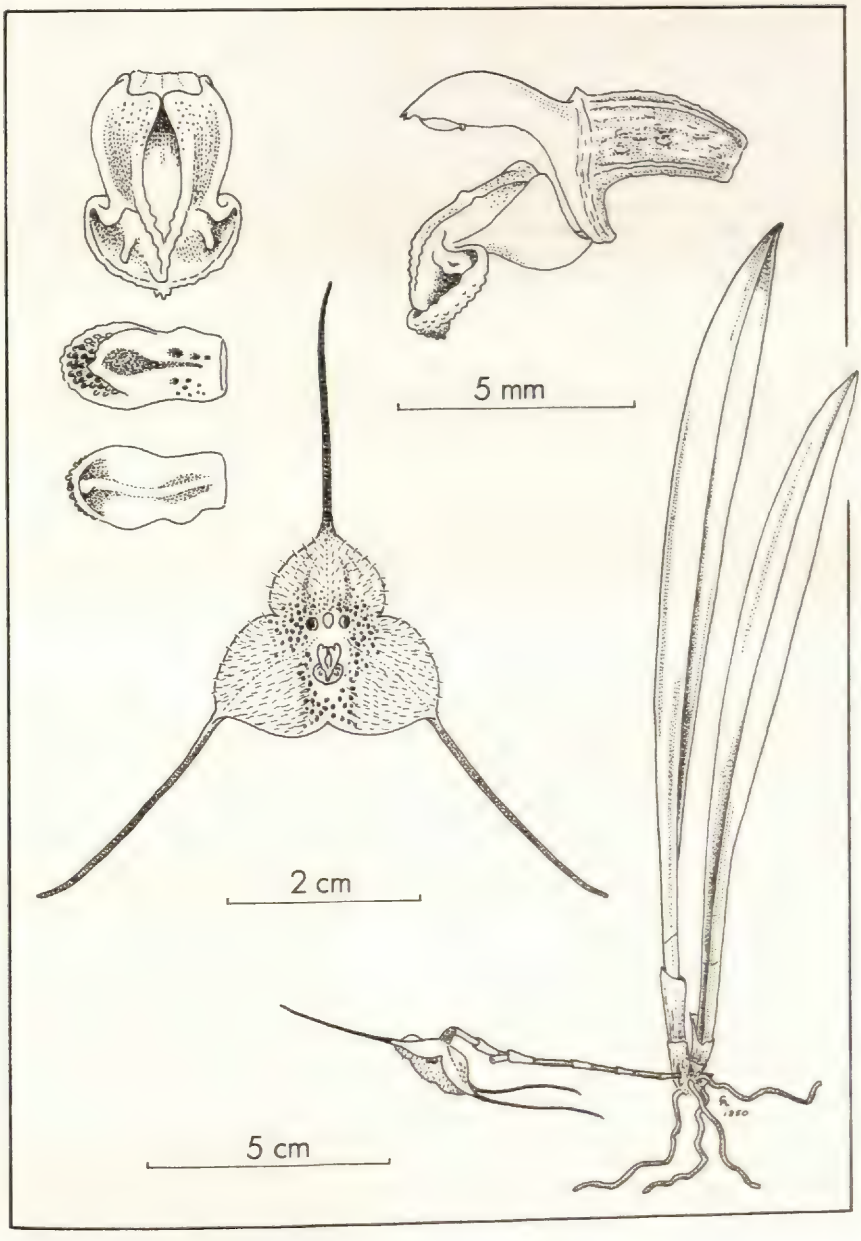


Plate 49. *Dracula lemurella* Luer & Escobar

Dracula levii Luer, Selbyana 2: 369, 1978.

Ety: Named in honor of the late Robert D. Levi of Mill Valley, California, who with the late Ronald Hawley discovered this species.

Plant large, epiphytic, shortly ascending to caespitose; roots fleshy. Ramicauls erect, stout, 2.5-8 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 18-32 cm long including an indistinct, conduplicate petiole, 1.5-2.3 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme, borne by a stout, suberect to horizontal, several-bracted peduncle 12-25 cm long, from low on the ramicaul; floral bract tubular, 1.5-2 cm long; pedicel 2-2.5 cm long; ovary 6-8 mm long, round in cross-section; **sepals** white, faintly suffused with yellow within toward the base, glabrous, the dorsal sepal transversely obovate, 20-22 mm long, 20-24 mm wide, connate to the lateral sepals for 15 mm to form a conical, sepaline tube, the obtuse apex abruptly contracted into a slender, light green tail 5-7 cm long, subtended by a callus at the apex of the sepal, the lateral sepals broadly ovate, oblique, 20-23 mm long, 20-22 mm wide, connate 15-18 mm into a conical mentum behind the lip, the obtuse apices contracted into tails similar to that of the dorsal sepal, each tail also subtended by a callus at the apex of the sepal; **petals** yellowish white, cartilaginous, spathulate, 4 mm long, 2-2.5 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina short, acute, the outer lamina obtuse; **lip** white, oblong-subpandurate, thick, 7 mm long, 3-3.5 mm wide, the epichile ovate ill-defined, ca. 4 mm long, 3.5 mm wide, rounded at the subacute apex, shallowly concave, with a central carina, and 1-2 incomplete laminae to either side, the hypochile ovoid, 3 mm long, 3 mm wide, with erect, subacute, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 4.5-5 mm long, with a stout foot 2-3 mm long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest between Maldonado and Tulcán, alt. ca. 2500 m, 20 May 1976, collected by R. Hawley, R. Levi & W. Teague, flowered in cultivation at Mill Valley, CA, 11 Oct. 1978, *C. Luer 3455* (Holotype: SEL); same area, 26 Aug. 1978, *C. Luer, J. Luer & A. Hirtz 3409* (SEL); same area, alt. 2400 m, 4 Apr. 1984, *C. Luer, S. Dalström & T. Hõijer 9949* (MO); same area, flowered in cultivation at Colomborquídeas, 17 Dec. 1990, *R. Escobar 4083* (JAUM); same area, alt. 2400 m, 16 March 1991, *C. Luer, J. Luer, A. Hirtz, X. Hirtz & J. del Hierro 15102* (MO).
COLOMBIA: Dept. of Nariño: Piedrancha, alt. 1800-2000 m, collected by J. L. Aguirre, Feb. 1992, flowered in cultivation by Shigenobo Tsubota at Ran Nursery near Pereira, Oct. 1992, *R. Escobar s.n.* (JAUM).

This large species was one of several spectacular species discovered by Ronald Hawley, Robert Levi and Walter Teague when the new road to the west of Tulcán in northernmost Ecuador was first opened through virgin forest to Maldonado. Vegetatively *Dracula levii* is similar to the more frequent *Dracula gigas* found in the same area, but the former is easily identified by the white to pale green, glabrous, conical flowers with a tuberosity at the apex of each sepal at the base of each tail. The lip is proportionately small and thick without a clear demarcation between the epichile and hypochile that are nearly the same size.

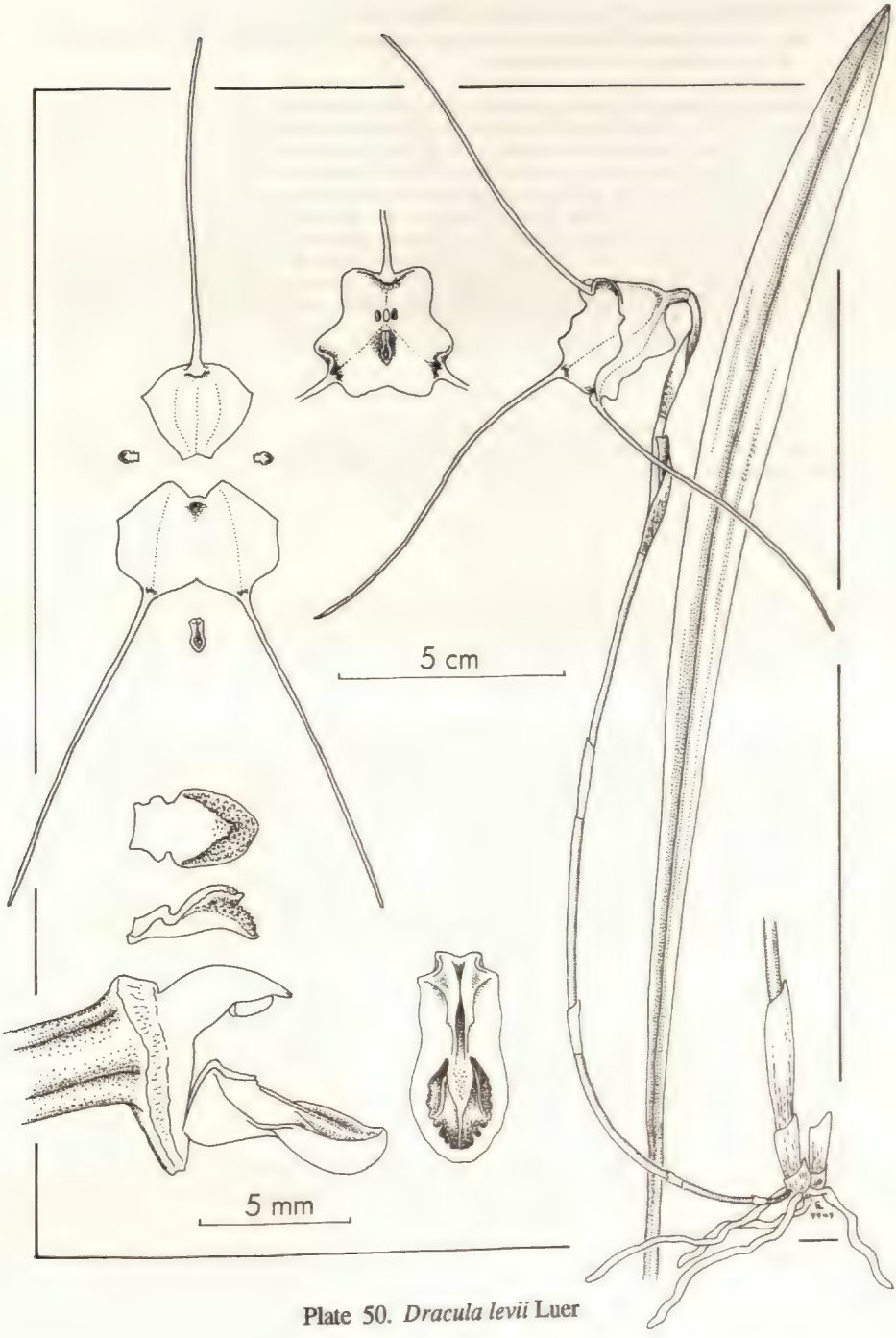


Plate 50. *Dracula levii* Luer

Dracula ligiae Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1008, 1989.

Ety.: Named in honor of Sra. Ligia de Posada, who with her husband Jaime Posada of Colomborquídeas, purchased and cultivated this species.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls erect, stout, 4-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-27 cm long including a petiole 5-7 cm long, the blade obovate, acute, 3-4.5 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme up to 7 cm long, borne by a stout, erect peduncle 20-25 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 12-15 mm long; pedicels 15-20 mm long; ovary subverrucose, 6-7 mm long, round in cross-section; **sepals** light yellowish with numerous purple-brown dots, coalescing toward the apices and coalescing into lines toward the bases, verrucose with a short, yellow pubescence within, the dorsal sepal broadly ovate, 30 mm long, 23 mm wide, connate to the lateral sepals for 9 mm to form a widely expanded flower, shallowly cupped at the base, the apex obtuse, contracted into a slender, erect, brown tail 2.5-3 cm long, the lateral sepals ovate, oblique, 35 mm long, 23 mm wide, connate 20 mm into a broad mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3.35 mm long, 1.75 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate; **lip** yellowish, spathulate, 14 mm long, 9 mm wide, the epichile suffused with rose, ovoid, deeply concave, 10 mm long, 9 mm wide, the margins denticulate and incurved, the hypochile oblong, dotted with brown, 4 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base inflexibly connected to the column-foot; **column** light yellow, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: without data, discovered in the collection of A. Mejía in Medellín, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *R. Escobar 3979* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 13114. Dept. of Antioquia: Munic. of Frontino, Nutibara, Alto de Golondrinas, alt. 2050 m, collected by J. M. Serna, flowered in cultivation by A. Mejía, 19 Oct. 1972, *R. Escobar 703* (JAUM).

This species has been in cultivation for many years, and has been known as "Dracula severa - number two" because of the superficial resemblance of the large habit with broad, subpetiolate leaves, erect inflorescences, and an immobile lip, to *D. severa*. The epichile is large, ovoid and concave with multiple, radiating lamellae.

After this species was described from the plant of unknown origin that was found in the collection of Sr. Alvaro Mejía in Medellín, a specimen of the species collected by J. M. Serna near Frontino in the Western Cordillera and flowered by Mejía was discovered in the herbarium at JAUM. It now seems probable that Mejía's plants of *D. ligia* originated from the collection by Serna in 1972. All plants presently in cultivation are divisions of the original plant.

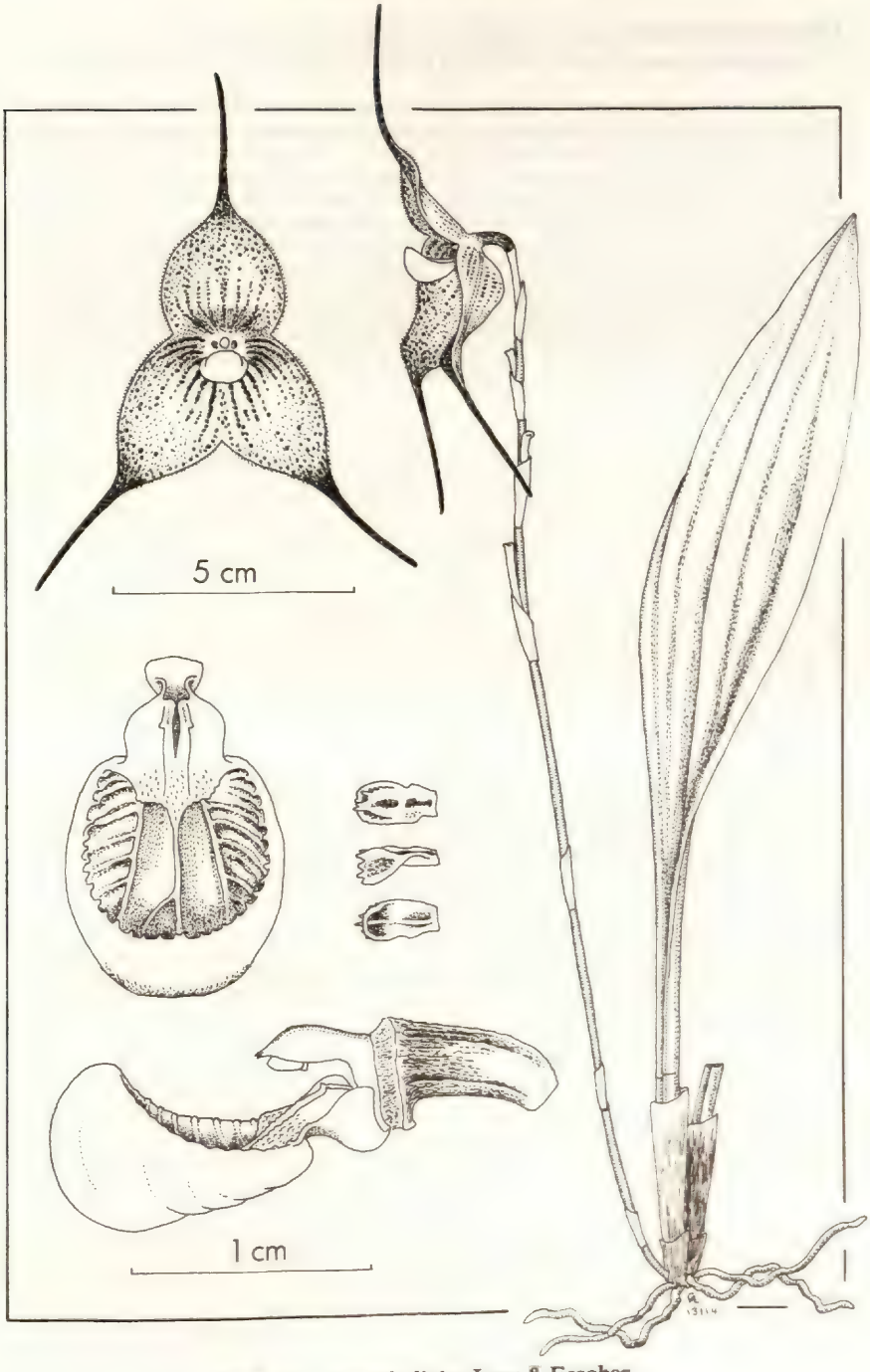


Plate 51. *Dracula ligiae* Luer & Escobar

Dracula lindstroemii Luer & Dalström, Thesaurus Dracularum 4, 1991.

Ety.: Named in honor of Manfred Lindström of Stockholm, Sweden, who discovered this species.

Plant small, epiphytic, densely caespitose; roots coarse. Ramicauls erect, stout, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 9-13 cm long including a conduplicate petiole 3-4 cm long, 1.5-2 cm wide, narrowly cuneate below into the petiole. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, descending, sparsely bracted peduncle 12-15 cm long, from low on the ramicaul; floral bract tubular, 5 mm long; pedicel 9-13 mm long; ovary 3 mm long, round in cross-section; **sepals** pale brown, suffused with darker brown at the apices, covered within by raised, dark brown spots, the dorsal sepal broadly ovate, 5 mm long, 6 mm wide, connate to the lateral sepals for 2 mm to form a campanulate, sepaline cup, the rounded apex contracted abruptly into a stout, brown tail 10-14 mm long, the lateral sepals suborbicular, oblique, 6 mm long, 5 mm wide, connate 5 mm into a broad, obtuse mentum, the rounded apices contracted into broad, brown tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, oblong, 2 mm long, 1.25 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina rounded, the outer lamina lightly recurved; **lip** pink, thick, pandurate, 3.5 mm long, 2.5 mm wide, the epichile suborbicular, 2.25 mm long, 2.25 mm wide, acutely deflexed upon the hypochile, concave with erect, smooth margins, with a tall, primary carina flanked on either side by 3 similar, radiating laminae, the hypochile thick, oblong, 3 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally between a pair of pyramidal calli, the concave base hinged to the column-foot; **column** yellow-white, semiterete, 3 mm long, with a stout foot equally long.

ECUADOR: Prov. of Carchi: epiphytic in wet forest above Maldonado, alt. 2000 m, Jan. 1982, collected by M. Lindström, S. Dalström, T. Höijer & L. Larsson, flowered in cultivation by R. LaFleur in Stockholm, Sweden, 29 Feb. Apr. 1987, *C. Luer 14568* (Holotype: MO).

This species was collected out of flower in wet forest above Maldonado in 1982 by Manfred (Schrödl) Lindström with several companions from Sweden. It first flowered in cultivation in 1987.

Dracula lindstroemii is distinguished by the small habit with acute, elliptical, petiolate leaves. The raceme descends to produce a few, distantly spaced, successive flowers. The flowers are small and subglobose, with thick, rigid tails. The sepals are light brown, suffused with dark brown at the apices, and studded within by multiple, dark brown warts. The little lip with the concave epichile filled with tall, radiating lamellae, indicates a relationship with both *D. radiella* and *D. syndactyla*.

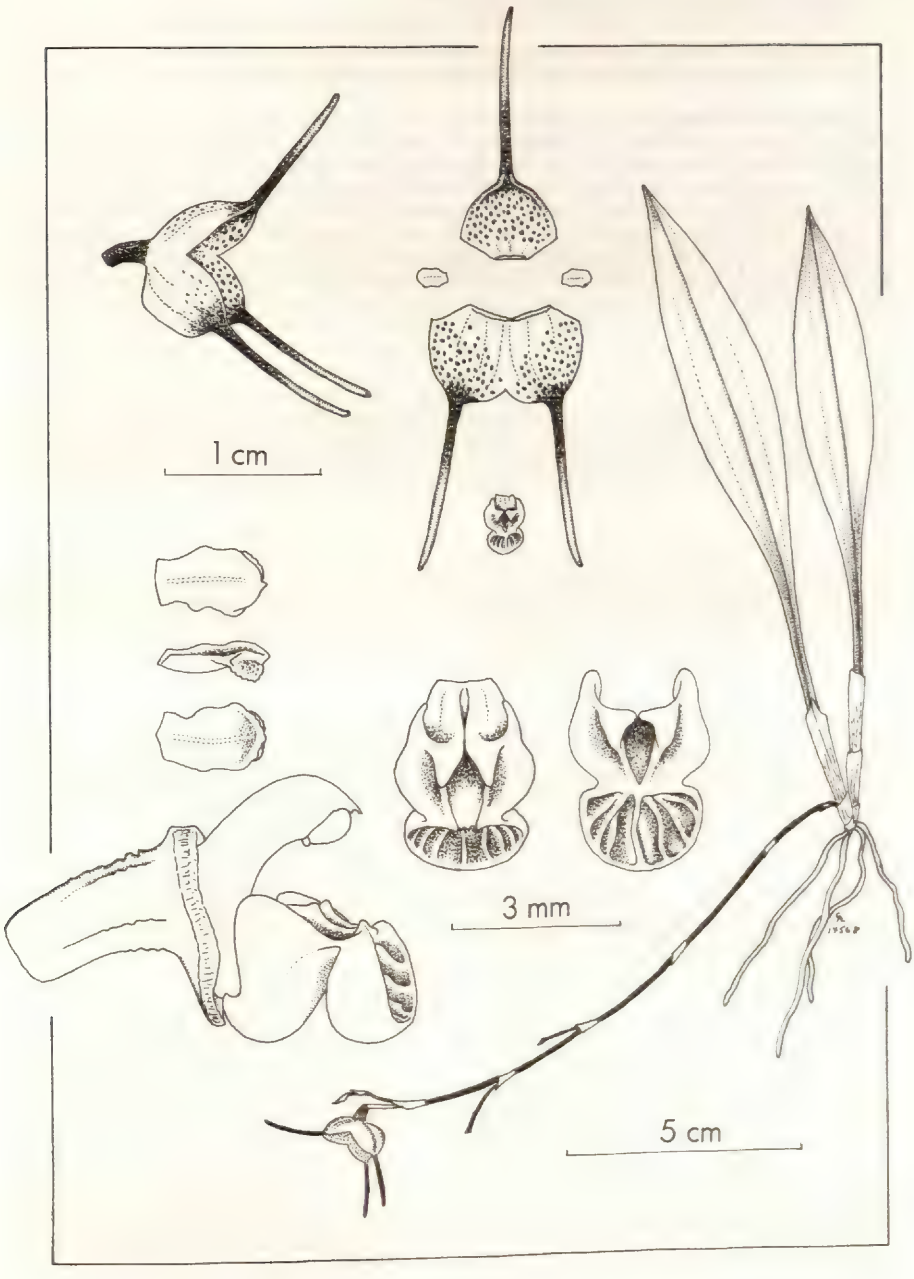


Plate 52. *Dracula lindstroemii* Luer & Dalström

Dracula lotax (Luer) Luer, Selbyana 2:195, 1978.

Bas.: *Masdevallia lotax* Luer, Phytologia 39: 210, 1978.
Ety.: From the Greek *lotax*, "a clown," in allusion to the fancied face seen in the flower.

Syn.: *Masdevallia bomboiza* Fiske, Amer. Orchid Soc. Bull. 43: 102, 1974, *nomen nudum*.
Ety.: The name refers to the settlement of Bomboiza in southeastern Ecuador.

Plant small to medium in size, epiphytic, shortly repent; roots slender. Ramicauls slender, erect to suberect, 1-2 cm long, enclosed by 2-3 tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 6-10.5 cm long including an indistinct petiole, the blade narrowly elliptical, acute, 0.5-0.6 cm wide, the base gradually narrowed into the channeled petiole. **Inflorescence** a single flower, borne by a purple, suberect, horizontal to descending, slender, sparsely bracted peduncle 5-8 cm long, from low on the ramicaul; floral bract tubular, 5-6 mm long; pedicel 10-12 mm long; ovary green, suffused with rose, 3-4 mm long, round in cross-section, with lightly undulating ribs; **sepals** snow white with a few orange dots at the base within, shortly spiculate-pubescent within, the dorsal sepal transversely ovate, 8 mm long, 11 mm wide, connate to the lateral sepals for 5 mm to form a gaping cup, the apex rounded, abruptly contracted into a slender, erect, maroon tail 2.5-3 cm long, the lateral sepals obliquely ovate-triangular, obtuse, 9 mm long, 8 mm wide, connate 8 mm into a transversely oblong lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with dark purple, cartilaginous, oblong, 4 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** white with pink dots, pandurate, 4.5 mm long, 3 mm wide, the epichile transversely elliptical, 1.5 mm long, 2 mm wide, concave with a single lamella, the hypochile thick, oblong, 3 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 3 mm long, with a stout foot 2.5 mm long.

ECUADOR: Prov. of Pastaza: epiphytic in rain forest near Mera, west of Puyo, alt. 1000 m, April 1973, collected by Janet Kuhn & Joe Brenner, flowered in cultivation at J & L Orchids, Easton, CT., 7 Nov. 1977, *C. Luer 2120* (Holotype: SEL); same collection, flowered in cultivation by M. & O. Robledo at La Ceja, May 1976, *R. Escobar 1970* (JAUM); between Mera and Puyo, flowered in cultivation at Colomborquídeas, 17 Apr. 1988, *C. Luer 13214* (MO). Prov. of Morona-Santiago: between Mendez and Morona, alt. 900 m, 1 Jan. 1990, *C. Dodson, E. Hagsater & N.H. Williams 18218* (MO). Prov. of Zamora-Chinchipe: Patuca, alt. 1600 m, collected cultivated by *F L Stevenson 90-614-1* (MO).

Commonly known as "the clown," this little species is apparently endemic in the tall, wet forests of eastern and south eastern Ecuador. Both Joe Brenner, at that time living in Puyo, and Milan Fiske of Burnt Hills, New York, were early collectors of this species. Fiske included a color photograph identified as *Masdevallia bomboiza* in his article in the *American Orchid Society Bulletin* on his expedition to the Cordillera del Condor in 1972.

Although the plants form dense clumps, the rhizomes are shortly repent. They grow and flower readily in cultivation. The small, white flowers with red tails are produced on weak peduncles. The sepals form a shallow cup lined by a blanket of short, thick hairs. The dark-tipped petals flank the column like beady eyes to either side of a nose, and the lip below is easily interpreted as a mouth, all in the center of a whiskery face.

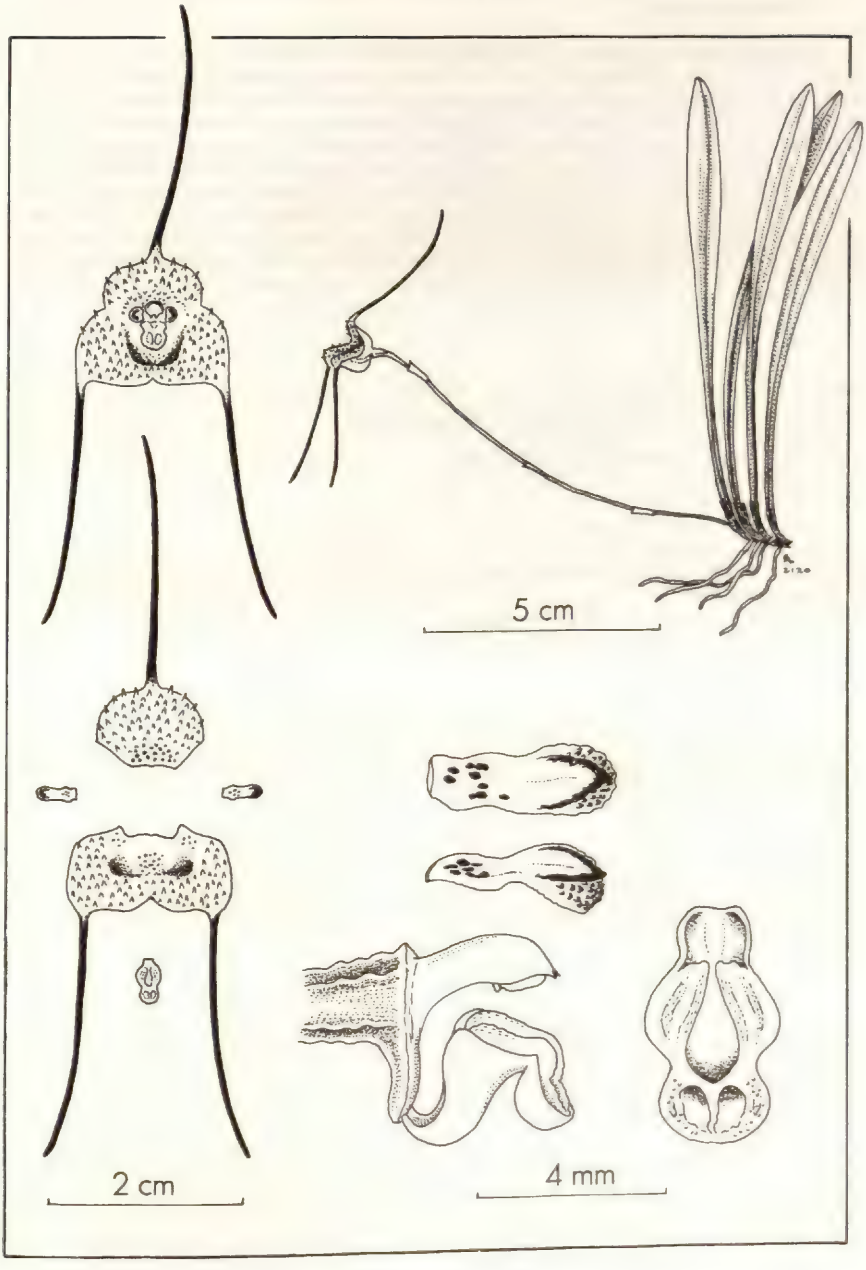


Plate 53. *Dracula lotax* (Luer) Luer

Dracula mantissa Luer & Escobar, Amer. Orchid Soc. Bull. 48: 709, 1979.

Ety.: From the Latin *mantissa*, "a trifling addition," in allusion to some of the smallest flowers known in the genus.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, acute, 15-21 cm long, 1.7-2.1 cm wide, gradually narrowed below to the base. **Inflorescence** a single or successively two-flowered raceme, borne by a slender, horizontal, sparsely-bracted peduncle 5-8 cm long, from low on the ramicaul; floral bract tubular, 5 mm long; pedicel 6-8 mm long; ovary thick, 3 mm long, with 6 low, minutely serrated crests, round in cross-section; **sepals** light yellow, suffused with red, glabrous, studded with red, cellular papillae within, the dorsal sepal broadly obovate, 5 mm long, 6 mm wide, connate to the lateral sepals for 3 mm to form a subglobose, sepaline cup, the apex obtuse, contracted into a slender, dark red tail 10 mm long, the lateral sepals broadly ovate, oblique, 6 mm long, connate 6 mm into a broad, subquadrate synsepal 8 mm wide with a broad mentum, the obtuse apices contracted into tails 8 mm long, similar to that of the dorsal sepal; **petals** yellow, marked with red-brown, cartilaginous, oblong, 2.5 mm long, 1 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina rounded; **lip** white, marked with rose, subpandurate, 4 mm long, 1.75 mm wide, the epichile suborbicular, 1.25 mm long, 1.5 mm wide, shallowly concave, with 3 parallel, raised veins, the hypochile ovoid, 2.75 mm long, 1.75 mm wide, with erect, subacute, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 3 mm long, with a stout foot equally long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest above Chiriboga, alt. 1800-2000 m, collected by B. Malo, flowered in cultivation at Tarqui, 12 Feb. 1979, *C. Luer 3966* (Holotype: SEL; Isotype: JAUM). Prov. of Imbabura: above Río Los Cedros, alt. 1850 m, 27 Jan. 1993, *S. Dalström, T. Höijer & H. Wanntorp 1801* (MO).
COLOMBIA: Dept. of Nariño; Munic. of Ricaurte, Chucunés, Hacienda La Planada, alt. 1850 m, 24 Feb. 1979, *R. Escobar, O. Salazar de Benavides & D. Portillo 1946* (JAUM, SEL).

This infrequent, diminutive-flowered species occurs in southwestern Colombia and northwestern Ecuador where it was first discovered by Benigno Malo. The habit with long, narrow leaves is indistinguishable from many others The distinctive flowers, however, are possibly the smallest known in the genus.

Dracula mantissa is related to *D. felix* with which it is sympatric in Ecuador. The flowers of the two species are similar, but those of *D. mantissa* are much smaller, and they do not produce capsules in the copious manner of *D. felix*.

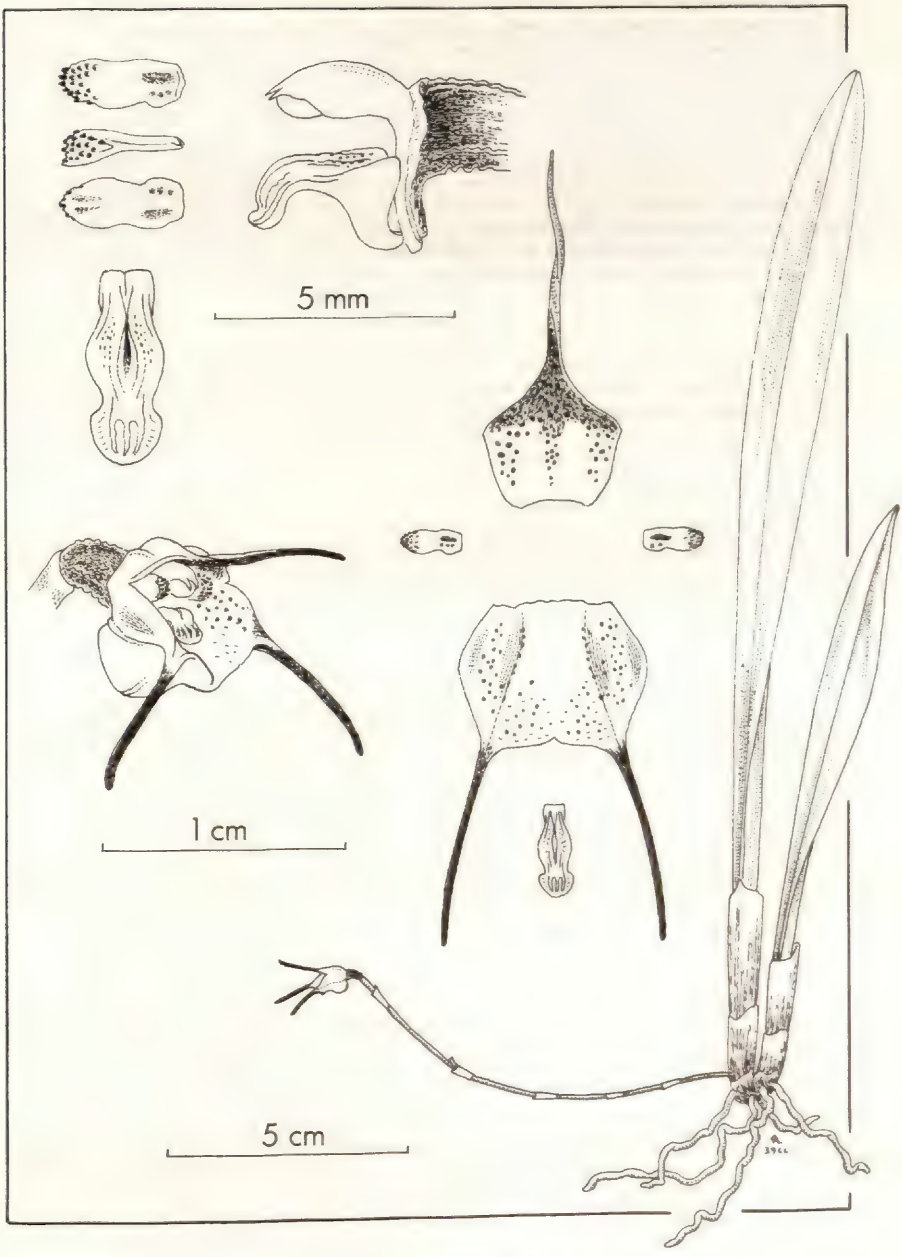


Plate 54. *Dracula mantissa* Luer & Escobar

Dracula marsupialis Luer & Hirtz, Die Orchidee 37: 25, 1986.

Ety.: From the Latin *marsupialis*, "pouch-like," referring to the inflated epichile of the lip.

Plant medium sized to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 3-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, subplicate, 13-20 cm long including a petiole 4-6 cm long, the blade elliptical, acute to subacute, 2.5-5 cm wide, the base cuneate into the conduplicate petiole. **Inflorescence** a lax, successively several-flowered raceme up to 17 cm long, borne by a descending to transverse peduncle 15-25 cm long, with few distant bracts, from low on the ramicaul; floral bract tubular, 8-13 mm long; pedicel 9-10 mm long; ovary 5 mm long, microscopically subverrucose; **sepals** yellow, dotted with coalescing brown spots toward the bases and apices, minutely ciliate-papillose, the dorsal sepal ovate, 17-22 mm long, 12-18 mm wide, connate to the lateral sepals for 6-7 mm to form a widely spread flower, the apex subacute to obtuse, contracted into a brown tail 3-4 cm long, the lateral sepals ovate, oblique, 23-30 mm long, 13-18 mm wide, connate 8-12 mm to form a broad, shallow mentum, the apices subacute to obtuse, contracted into brown tails similar to that of the dorsal sepal; petals **white** marked with dark brown, oblong, 3-4 mm long, 2 mm wide, the apex bivalvate, with multiple brown tubercles between the laminae, the inner lamina, denticulate, the outer lamina round, recurved; **lip** white, suffused with lemon yellow within the epichile, spathulate, 11-13 mm long, 6-8 mm wide, the epichile oblong, 8-9 mm long, 6-8 mm wide, the rounded, inflated apex acutely reflexed to form a pouch 6-7 mm deep, the cavity traversed by multiple, raised, radiating, branching veins, the margins toothed, the hypochile oblong, 3-4 mm long, 2.5-3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 4-5 mm long, with a stout foot 3-4 mm long.

ECUADOR: Prov. of Pichincha: epiphytic in wet forest above Mindo, alt. 2200 m, 8 April 1984, *A. Hirtz 1798* (Holotype : MO), C. Luer illustr. 11129; flowered in cultivation at Colomborquídeas, Colombia, 25 Apr. 1988, *C. Luer 13310* (MO). Prov. of Imbabura: epiphytic in wet forest in the Los Cedros reserve, alt. ca. 2000 m, 22 Jan. 1993, *S. Dalström, T. Höijer, H. Wanntorp & M. Read 2001* (MO).

This species was first collected without flowers by Alexander C. Hirtz of Quito, Ecuador, where *D. vampira* was growing abundantly. *Dracula marsupialis* is apparently rare, having been found on very few occasions on the western slope of northwestern Ecuador. The broad leaves are subplicate and petiolate and the slender peduncles are descending. The flowers are relatively small with widely spread, microscopically verrucose to pubescent, yellow sepals that are speckled with brown at the apices and bases. The apical margin of the extraordinary epichile of the lip is inflated and reflexed so that a deep pouch is created. Lamellate veins radiate within the pouch with toothed margins. It is similar to the lip of *D. gastrophora* which is distinguished by larger, dark brown, cupped flowers.

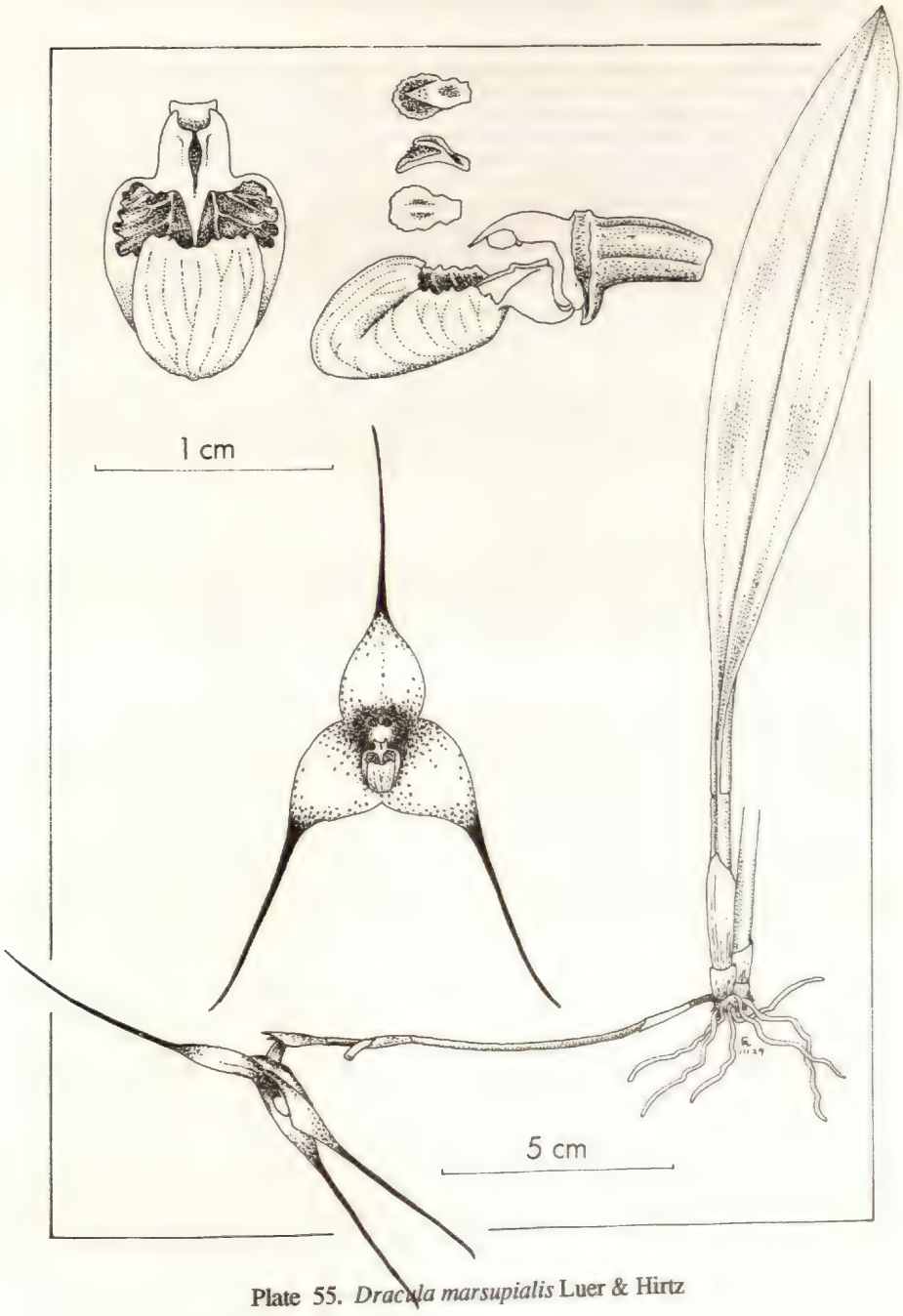


Plate 55. *Dracula marsupialis* Luer & Hirtz

Dracula minax Luer & Escobar, Orquideología 15: 27, 1981.

Ety.: From the Latin *minax*, "threatening," in allusion to the sinister appearance of the face in the flower.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls stout, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, subacute, 9-18 cm long including an indistinct petiole, 1.5-2.5 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a lax, successively few- to many-flowered raceme up to 10 cm long, borne by a stout, sparsely bracted, horizontal to descending peduncle 6-15 cm long, from low on the ramicaul; floral bract, tubular, 5-8 mm long; pedicel 7-10 mm long; ovary olive green, 3-4 mm long, round in cross-section; **sepals** dull light yellow, densely dotted and marked diffusely with dark purple-brown, shortly pubescent with subcapitate hairs within, the dorsal sepal broadly ovate, 12-13 mm long, 10-12 mm wide, connate to the lateral sepals for 4-5 mm to form a widely spread flower, the subacute apex contracted into a slender, erect, light brownish tail ca. 2 cm long, the lateral sepals broadly ovate, oblique, 15 mm long, 13 mm wide, connate 10 mm into a broad, shallow mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with purple-brown, cartilaginous, oblong, 4 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** light yellow, suffused with brown, spathulate, 10 mm long, 6 mm wide, the epichile suborbicular, 6 mm long, 6 mm wide, shallowly concave with denticulate, non-revolute margins, coursed within by 11-13 radiating, irregularly branching veins, the hypochile oblong, 4 mm long, 3.75 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** green, stout, semiterete, 5 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. of Antioquia: without collection data, flowered in cultivation at La Estrella by O. Arango, 25 Sept. 1977, *R. Escobar 682* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 1851; same collection, flowered in cultivation at La Ceja by M. & O. Robledo, *R. Escobar 970, 971* (JAUM); same collection, flowered in cultivation at Colomborquideas, 10 Apr. 1988, *C. Luer 13164* (MO).

This species is apparently rare, having been collected near Medellín in the Central Cordillera of Colombia but once. The plant had been originally cultivated by Sr. Octavio J. Arango at La Estrella near Medellín for many years. All plants presently in cultivation are descendents of divisions of the original plant.

The small, widely spread flower of *Dracula minax* is characterized by the diffuse, dark purple-brown markings, and a shallowly concave, round epichile of the lip. The non-involute margins are denticulate with the terminations of the radiating veins within.

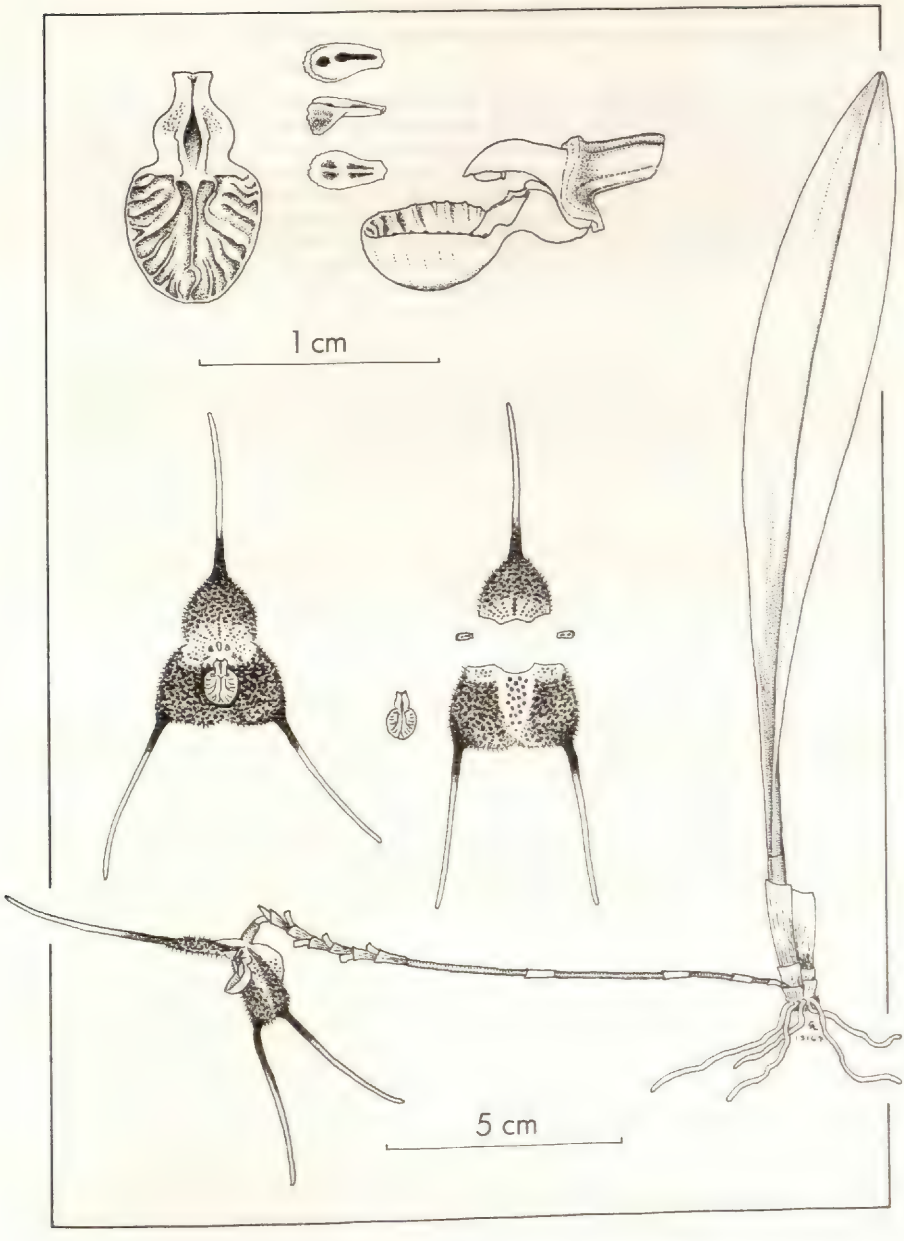


Plate 56. *Dracula minax* Luer & Escobar

Dracula mopsus (Lehm. & Kränzl.) Luer, Selbyana 2: 196, 1978.

Bas.: Masdevallia mopsus Lehm. & Kränzl., Repert. Spec. Nov. Regni Veg. 17:419, 1921.
Ety: Named for Mopsus, a mythological soothsayer, for some obscure reason.

Syn.: Masdevallia triceratops Luer, Selbyana 3: 222, 1977.
Ety.: From the Greek *triceratops*, "a three-horned face," in allusion to the resemblance of the dinosaur.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls slender, erect, 1-3 cm long, enclosed by 2-3 close, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 8-17 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.5-2.5 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme borne by a slender, purple, perpendicularly descending, sparsely bracted peduncle 4-10 cm long, from low on the ramicaul; floral bract tubular, 8-10 mm long; pedicel 5-10 mm long; ovary dark purple, 4-5 mm long, irregularly costate, round in cross-section; **sepals** cream-colored, diffusely spotted and suffused with red-purple, or purple-brown toward the bases and apices, with thick, red, more or less branching spicules within, the dorsal sepal transversely ovate, 9-10 mm long, 9-10 mm wide, connate to the lateral sepals for 2 mm to form a gaping, suborbicular, sepaline cup, the acute apex contracted into a thick, erect, red-brown tail 5-7 mm long, the lateral sepals connate 10 mm into an elliptical, concave lamina 12 mm long, 15 mm wide together and expanded, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** yellow-green, marked with purple, cartilaginous, oblong, 3.5 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter, denticulate; **lip** yellow-orange, marked with rose, pyriform to spathulate-pandurate, 5 mm long, 2.5 mm wide, the epichile suborbicular, 2 mm long, 2.5 mm wide, shallowly concave, lightly verrucose within, the hypochile oblong, 3 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 4 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of El Oro: epiphytic in dense, damp forests, Cuesta de Amboca and Pacayuru above Zaruma, alt. 1200-1500 m, *F. C. Lehmann 7016* (Holotype: K); epiphytic in forest above the gold mines above Zaruma, alt. 1500 m, 6 Mar. 1982, *C. Luer, A. Andreetta & S. Dalström 7199* (SEL); between Piñas and Santa Rosa, alt. 1100 m, 20 Apr. 1989, *C. Dodson, R. Dressler, N. Williams & A. Embree 18175* (MO). Prov. of Manabí: epiphytic near the summit of Montecristi, alt. 650 m, flowered in cultivation at the Missouri Botanical Garden, 1 Apr.1961, *C. H. Dodson 363* (MO, SEL). Prov. of Cotopaxi: epiphytic in forest west of Corazón, alt. 1200 m, 18 Feb. 1979, *C. Luer, J. Luer & A. Hirtz 4026* (SEL); without locality, flowered in cultivation by M. & O. Robledo at La Ceja, 21 Oct. 1979, *C. Luer 4301* (SEL); flowered in cultivation, Nov. 1973, *R. Escobar 999* (JAUM).

During his visit to the gold mines at Zaruma in southwestern Ecuador in 1879, Consul and mining engineer F. C. Lehmann made the first collections of two species of *Dracula* in the nearby forests: the present *D. mopsus*, and *D. woolwardiae*. They still are to be found in these forests today. Both species occur relatively frequently in western Ecuador at moderate altitudes less than 1500 meters above sea level. *Dracula mopsus* grows in the damp forest on Montecriste within sight of the Pacific Ocean.

Dracula mopsus pruduces from relatively short, descending peduncles small, red-brown spotted, cup-shaped flowers with costate ovaries and short tails. When plants form dense clumps in accumulations of debris and humus, the flowers appear at a distance below or within the debris as if detached from the plant above.

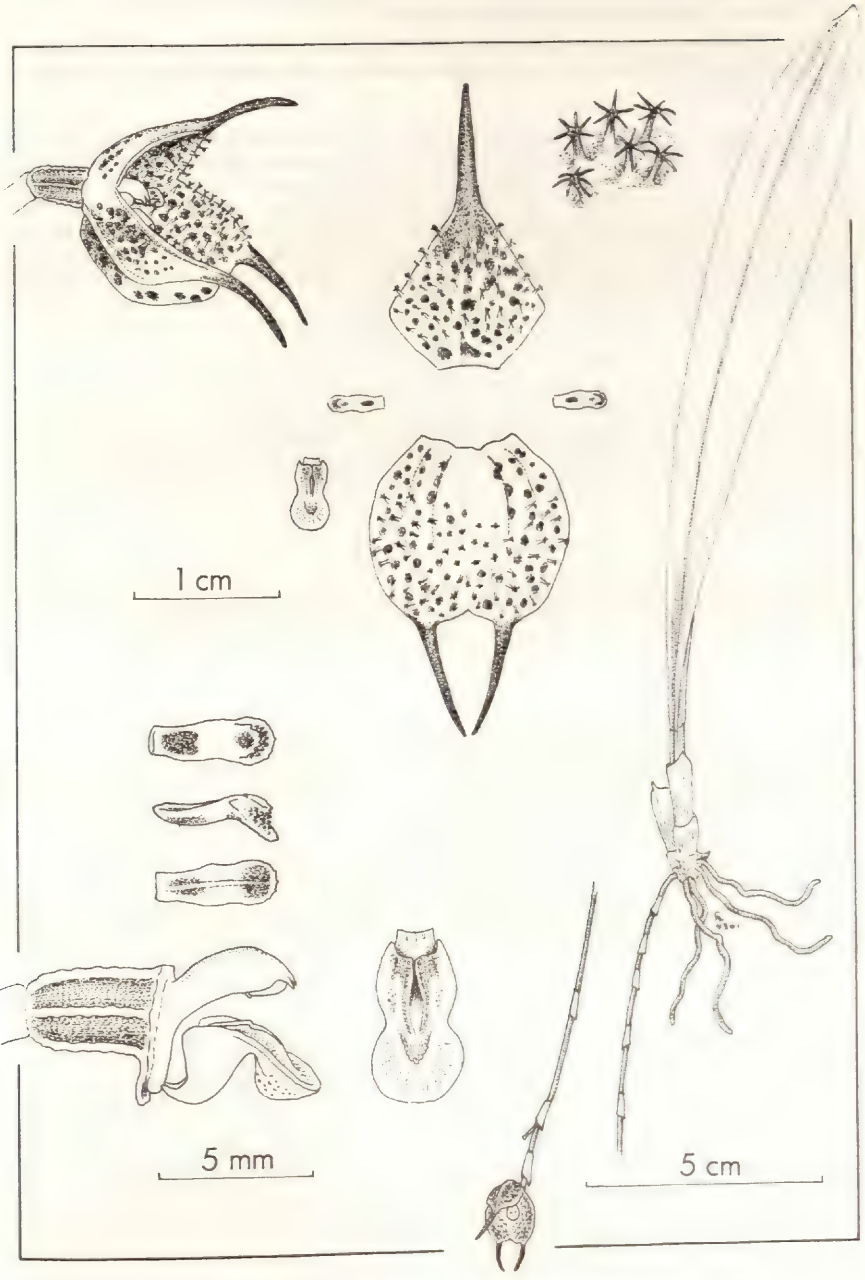


Plate 57. *Dracula mopsus* (Lehm. & Kränzl.) Luer

Dracula morleyi Luer & Dalström, sp. nov.

Ety: Named in honor of Dr. Morley Read of Cornwall, England, supervisor of the Los Cedros Reserve Project, and original discoverer of this species.

Planta mediocris vel grandis, foliis acutis longipetiolatis, floribus rotundatis, sepalis intus nigropunctatis longipubescentibus obtusis, caudis brevibus nigris, labelli epichilio suborbiculari profunde concavo lamellae radiantibus.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 4-4.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, long-petiolate, acute, lightly acuminate, 20-23 cm long including the petiole 5-7 cm long, 2.5-3 cm wide, the base narrowly cuneate into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a horizontal to descending, sparsely bracted peduncle 10-16 cm long, from low on the ramicaul; floral bract, tubular, oblique, 7 mm long; pedicel 11 mm long; ovary 6 mm long, minutely verrucose, round in cross-section; **sepals** dull white, intensely dotted with blackish purple, especially toward the apices and bases, with a long, white pubescence within, the dorsal sepal transversely ovate, 12 mm long, 19 mm wide, connate to the lateral sepals for 8 mm to form a round, shallowly cupped flower, the broadly rounded apex contracted into a slender, forward, blackish purple tail 15-19 mm long, the lateral sepals broadly ovate to orbicular, oblique, 16 mm long, 16 mm wide, connate 10 mm into a broad lamina with a shallow mentum, the apices broadly rounded, contracted into tails similar to that of the dorsal sepal; **petals** white, marked with black, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina rounded, recurved; **lip** pale yellow, spathulate, 7.5 mm long, 6.5 mm wide, the epichile transversely subglobose, inflated, deeply concave, 4.5 mm long, 6.5 mm wide, 3 mm deep, filled with pink, radiating, branching lamellae, minutely verrucose externally, the hypochile subovoid, 4 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally between a pair of plates, the concave base hinged to the column-foot; **column** white, stout, semiterete, 5 mm long, with a stout foot equally long.

ECUADOR: Prov. of Imbabura: epiphytic in wet forest in the Los Cedros reserve, alt. 1900 m, 22 Jan. 1993, *S. Dalström, T. Höijer, H. Wanntorp & M. Read 1723B* (Holotype: MO), C. Luer illustr. 16593.

First found and recognized as a new species by Morely Read, this species occurs abundantly in a remote, wet, primary forest in northwestern Ecuador. Other species of the genus present in the same forest include *D. alcitoë*, *D. chiroptera*, *D. felix*, *D. hirtzii*, *D. lafleurii*, *D. mantissa*, *D. marsupialis*, *D. polyphemus*, *D. radiosa*, *D. venosa*, *D. vespertilio* and *D. woolwardiae*.

Dracula morleyi is distinguished by the long-petiolate, acute leaves and a small, round, shallowly cupped flower with short, slender, blackish tails. The sepals are long-pubescent and intensely dotted with purple-black within. The epichile of the lip is suborbicular and deeply concave with numerous, radiating, branching, complete and incomplete lamellae.

This species is superficially similar to the Colombian *D. carcinopsis*, but *D. morleyi* differs vegetatively in the acute, long-petiolate leaves. The flowers of the two species are of similar size and color, but the round, shallowly cupped flower with the multiple black dots within, as well as the transverse, deeply concave epichile of the lip distinguish *D. morleyi*.

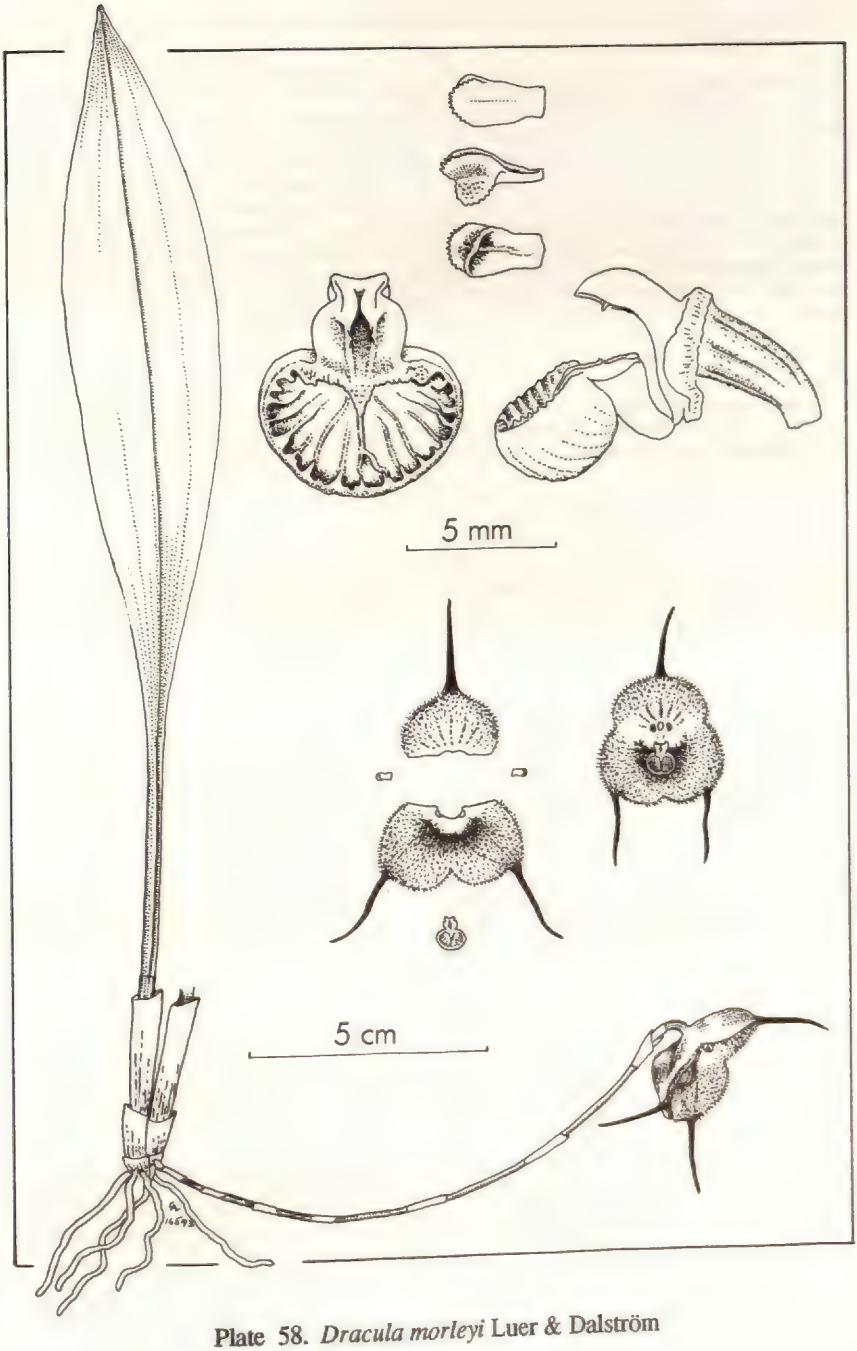


Plate 58. *Dracula morleyi* Luer & Dalström

Dracula navarroörum Luer & Hirtz, *Thesaurus Dracularum* 6: 9, 1993, as *navarrorum*.

Ety.: Named in honor of Sr. Fernando Navarro and his wife Monica, of Quito, Ecuador, who discovered this species.

Plant medium in size, epiphytic, densely caespitose; roots coarse. Ramicauls slender, erect, 3-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly linear-elliptical, acute, 17-24 cm long including an indistinct petiole, 1.1-1.8 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a single flower, often followed by a second flower, borne by a slender, suberect peduncle 5 cm long, from low on the ramicaul; floral bract, tubular, 8-10 mm long; pedicel 13-18 mm long; ovary purple-brown, 4-5 mm long, round in cross-section; **sepals** fleshy, white, dotted with purple-brown, shortly spiculate within, the dorsal sepal transversely ovate, 10 mm long, 15 mm wide, connate to the lateral sepals for 7 mm to form a cupped flower, the apex broadly obtuse, contracted into a thick, erect, purple-brown tail 3 cm long, 2 mm broad, the lateral sepals broadly ovate, oblique, 15 mm long, 14 mm wide, connate 12 mm to form a broad, shallow mentum, the apices obtuse, contracted into thick tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong, 3.5 mm long, 2.25 mm wide, the apex bivalvate, markedly papillose between the laminae, the inner lamina acute, denticulate, the outer lamina obtuse; **lip** white, spathulate, 8.5 long, 5 mm wide, the epichile ovoid, concave, 5.5 mm long, 5 mm wide, with the margins erect and toothed, with 1 primary lamella flanked by several, low, radiating veins, the hypochile oblong, 3 mm long, 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a stout foot about as long.

ECUADOR: Prov. of Pichincha: epiphytic in forest remnant near Tandayapa, alt. 1800 m, collected by Monica and Fernando Navarro, Aug. 1989, flowered in cultivation in Quito, 26 Mar. 1991, *A. Hirtz 4854* (Holotype: MO), C. Luer illustr. 15259; Nanegalito, collected by Juan Del Hierro, flowered in cultivation by him in Quito, 16 Mar. 1992, *S. Dalström 1661* (MO).

This species was recently discovered by Monica and Fernando Navarro in a forest remnant on the slopes of the Andes west of Quito, Ecuador, in an area that has been well-botanized for the past century and a half. In many ways it is similar to the Colombian *Dracula psittacina*. Both species are characterized by long, slender leaves, a comparatively short, suberect peduncle, and thick sepaline tails, although the tails of *D. navarroörum* are considerably thicker.

The flowers of both species are whitish, and dotted with purple or brown and pubescent within. The fleshy tails of *D. navarroörum* are two millimeters thick. The petals of *D. navarroörum* are thicker with more verrucosities at the apex. The lip of *D. navarroörum* is considerably larger with the epichile containing more lamellae and teeth that project above a margin that is not involute.

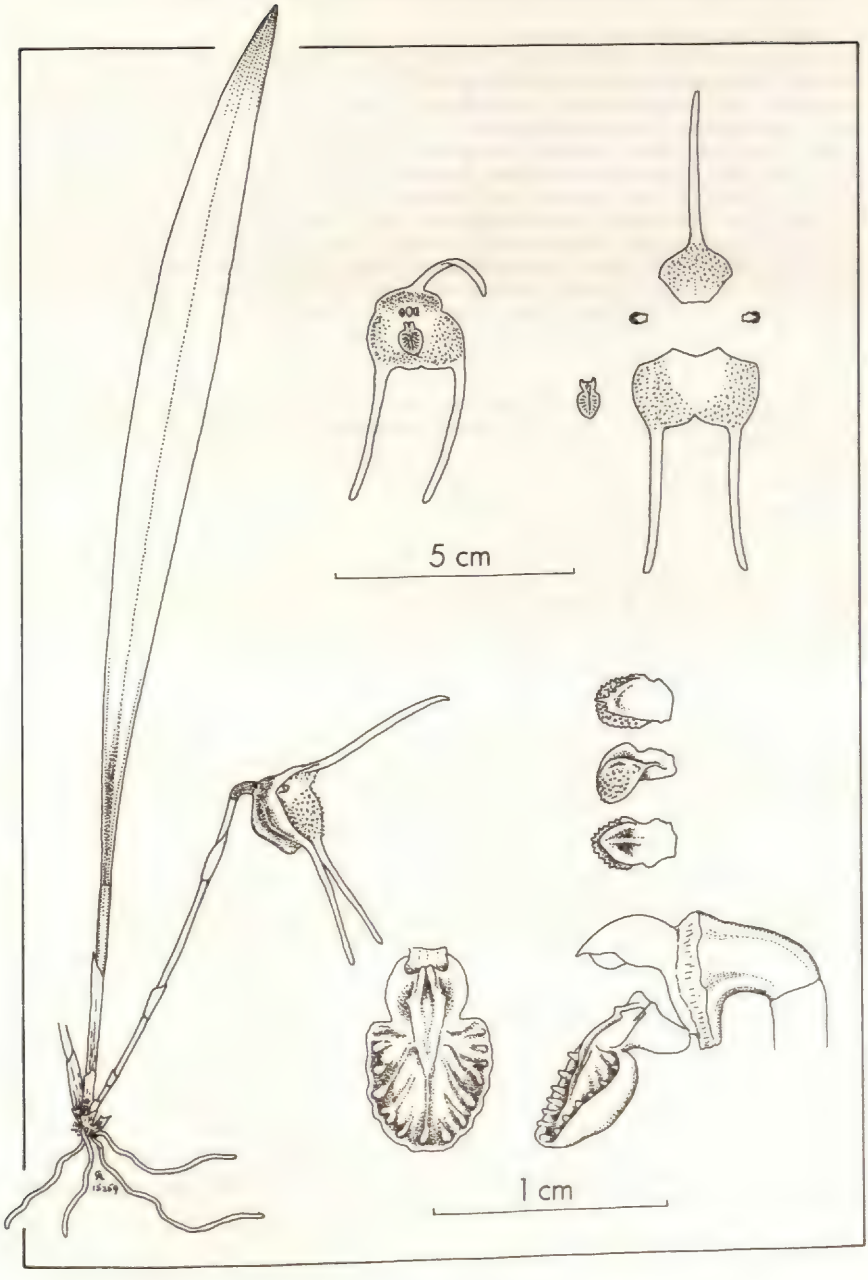


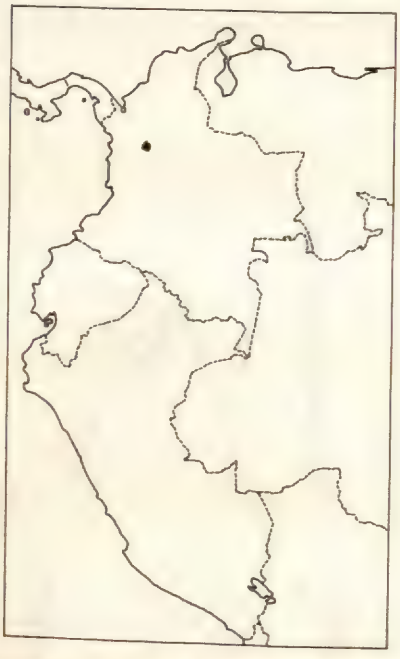
Plate 59. *Dracula navarroörum* Luer & Hirtz

Dracula nosferatu Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1009, 1989.

Ety.: Named for the 1922 German stage name *Nosferatu* for the copyrighted name *Dracula*.

Plant medium-sized to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, obovate, subplicate, acute, carinate, 18-25 cm long including an indistinct petiole 3-4 cm long, 3-4 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a successively few-flowered raceme borne by a more or less horizontal, several-bracted peduncle 11-13 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 15 mm long; ovary smooth, 5 mm long, round in cross-section; **sepals** dark purple with a yellowish white zone surrounding the central apparatus, and another on the medial halves of the lateral sepals, the veins subcarinate, shortly pubescent within, the dorsal sepal triangular-ovate, 20 mm long, 20 mm wide, connate to the lateral sepals for 7 mm to form a gaping flower, the apex acute, acuminate into a slender, erect, dark purple tail 2.5 cm long, the lateral sepals ovate, oblique, 18 mm long, 18 mm wide, connate 20 mm to form a deep, narrow mentum, the bases with a distinct low, rounded callus, the apices obtuse, acuminate into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple, cartilaginous, oblong, 4.5 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina much denticulate, the outer lamina recurved; **lip** white, spathulate, 13 mm long, 8 mm wide, the epichile ovate, thin, concave, filled with multiple radiating, branching lamellae, with the veins prominent externally, 7 mm long, 8 mm wide, the margins erect, denticulate, the hypochile oblong, 6 mm long, 4 mm wide, with erect, rounded, marginal angles, minutely verrucose, cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 5 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Antioquia: Munic. of La Union, epiphytic in trees along a stream near Mesopotamia, alt. 2400 m, April 1987, collected by D. Arbelaez, flowered in cultivation at Colomborquídeas, 6 Apr. 1988, *R. Escobar 3977* (Holotype JAUM; Isotypes: K, MO), C. Luer illustr. 13013; without locality, obtained from H. Angarita by J. Rios and B. Pineda, flowered in cultivation near Guame, 12 Mar. 1989, *C. Luer 14126* (MO).



This curiously colored species is apparently endemic in a small, isolated valley in the Central Cordillera of Colombia where it was recently discovered by employees of Colomborquídeas, Ltda. Vegetatively the relatively broad, subplicate leaves and descending peduncles are not distinctive. The flowers are average in size for the genus.

The sepals are deep purple except for a broad, white, scalloped halo over the column and petals, reminiscent of the coronet found along the base of the dorsal sepal of *D. vampira*. A lesser patch of white is present on the lateral sepals. The connate lateral sepals form a deep, narrow mentum. The epichile of the lip is thin with gently curved sides and filled with numerous radiating, branching lamellae.

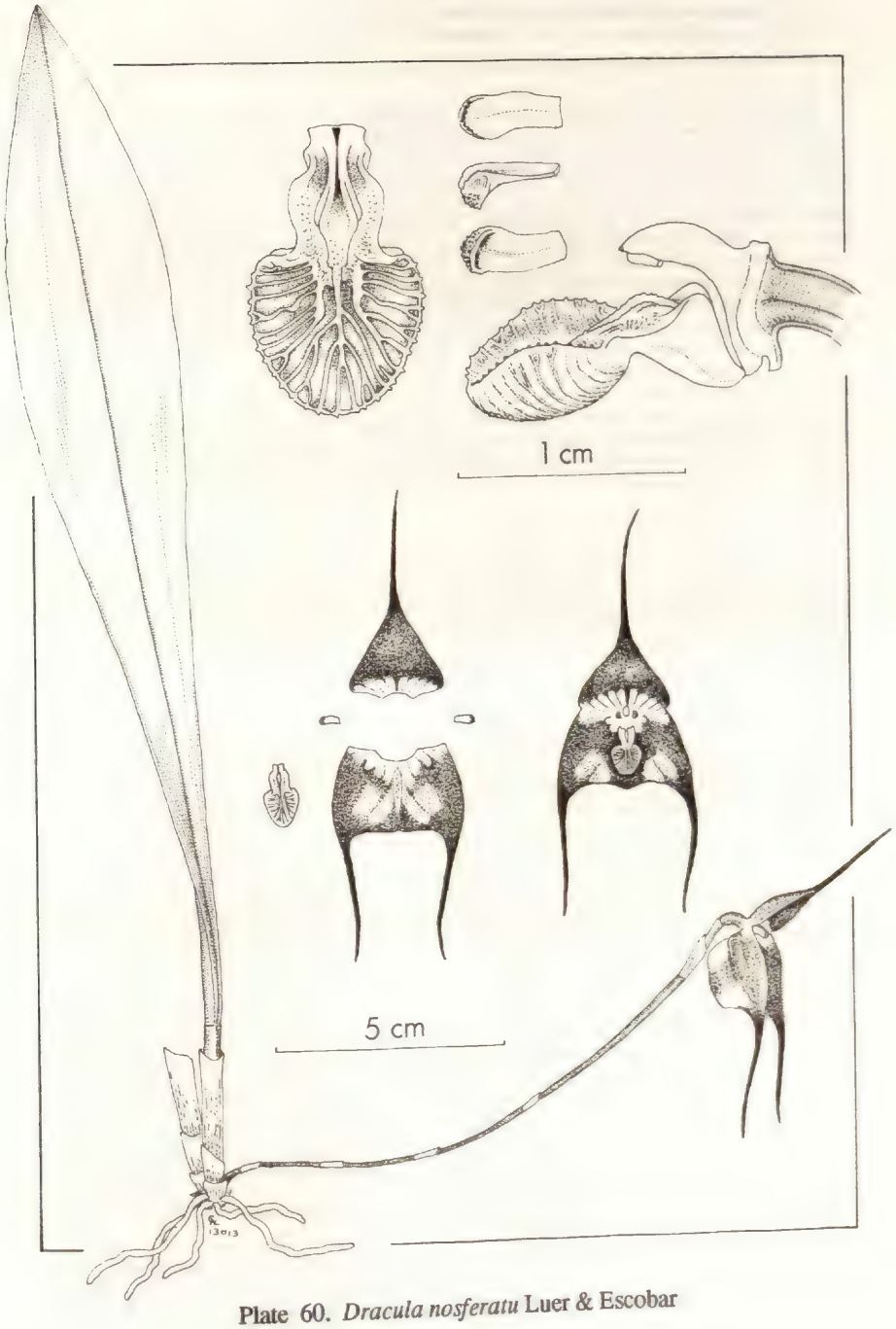


Plate 60. *Dracula nosferatu* Luer & Escobar

Dracula nycterina (Rchb.f.) Luer, Selbyana 2: 196, 1978.

Bas.: *Masdevallia nycterina* Rchb.f., Gard. Chron. 1238, 1873.

Ety.: From the Greek *nycteris*, "a bat," in fancied illusion of the appearance of the flower.

Syn: *Masdevallia chimaera* Linden & André, Ill. Hort. 20: 25, t. 117-8, 1873, non Rchb.f.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls stout, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 9-15 cm long including an indistinct petiole, 2-2.8 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a successively few-flowered raceme, borne by a purple, horizontal to descending, slender, subverrucose, sparsely bracted peduncle 4-8 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 8 mm long; ovary red-purple, 5 mm long, 4 mm wide, with 6 denticulate crests; **sepals** yellow, irregularly dotted with purple, shortly spiculate-pubescent within, the dorsal sepal triangular, 20-23 mm long, 14-17 mm wide, connate to the lateral sepals for 4-5 mm to form a widespread, flat flower, the apex acute, contracted into a slender, erect, dark purple tail 4-6 cm long, the lateral sepals obliquely ovate-triangular, obtuse, 18-23 mm long, 20-22 mm wide, connate 11-13 mm into a transversely oblong lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with red, cartilaginous, oblong, 5 mm long, 2.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** creamy white, spathulate, 9 mm long, 8 mm wide, the epichile transversely elliptical-oblong, 6 mm long, 8 mm wide, the sides revolute, filled within by radiating elevated veins, the hypochile oblong, 4 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, semiterete, 5 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Antioquia: ?Frontino, alt. "5-6000 feet," imported by J. Linden, cultivated by J. Day, 1874, *G. Wallis s.n.* (Holotype: W); Munic. of Granada: Santa Barbara, alt. ca. 1500 m, Jan. 1975, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 30 Nov. 1980, *R. Escobar s.n.* (JAUM); flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14097* (MO); Munic. of San Carlos: Sardinagrande, alt. 1200-1400 m, 18 May 1976, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 8 Nov. 1980, *R. Escobar s.n.* (JAUM); El Jordán, Alto de Tinajas, alt. ca. 1600 m, 1972, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 25 Sept. 1977, *C. Luer 1839* (SEL); and 16 Apr. 1988, *C. Luer 13195* (MO).

Although first collected by Gustav Wallis supposedly in the Western Cordillera of Colombia near Frontino, this rare species is known today only from a limited area in the Central Cordillera. It was first published in 1873 by J. Linden and E. André as Reichenbach's *Masdevallia chimaera*, the year following the original publication of the latter. Upon seeing the illustration in *Illustration Horticole*, Reichenbach realized that it was not the same species. In an article later that year describing the species as a new, "very insignificant *Masdevallia*," Reichenbach reports having seen a flowering specimen purchased from Linden for *M. chimaera* and cultivated by Mr. Day in London. Since he deemed it far inferior to the genuine *M. chimaera*, he wanted to publish his thoughts lest the latter species be sold for the true *M. chimaera*. Although enlarged, the illustration published by Linden and André otherwise is true.

The flower of *Dracula nycterina*, is very similar to that of *D. vespertilio*, both with epithets denoting a bat. Although the sepals of the two species are of similar size, shape and color, the lips immediately distinguish the two. The transversely concave epichile of *D. nycterina* is coursed within by radiating veins, while that of *D. vespertilio* is completely smooth.

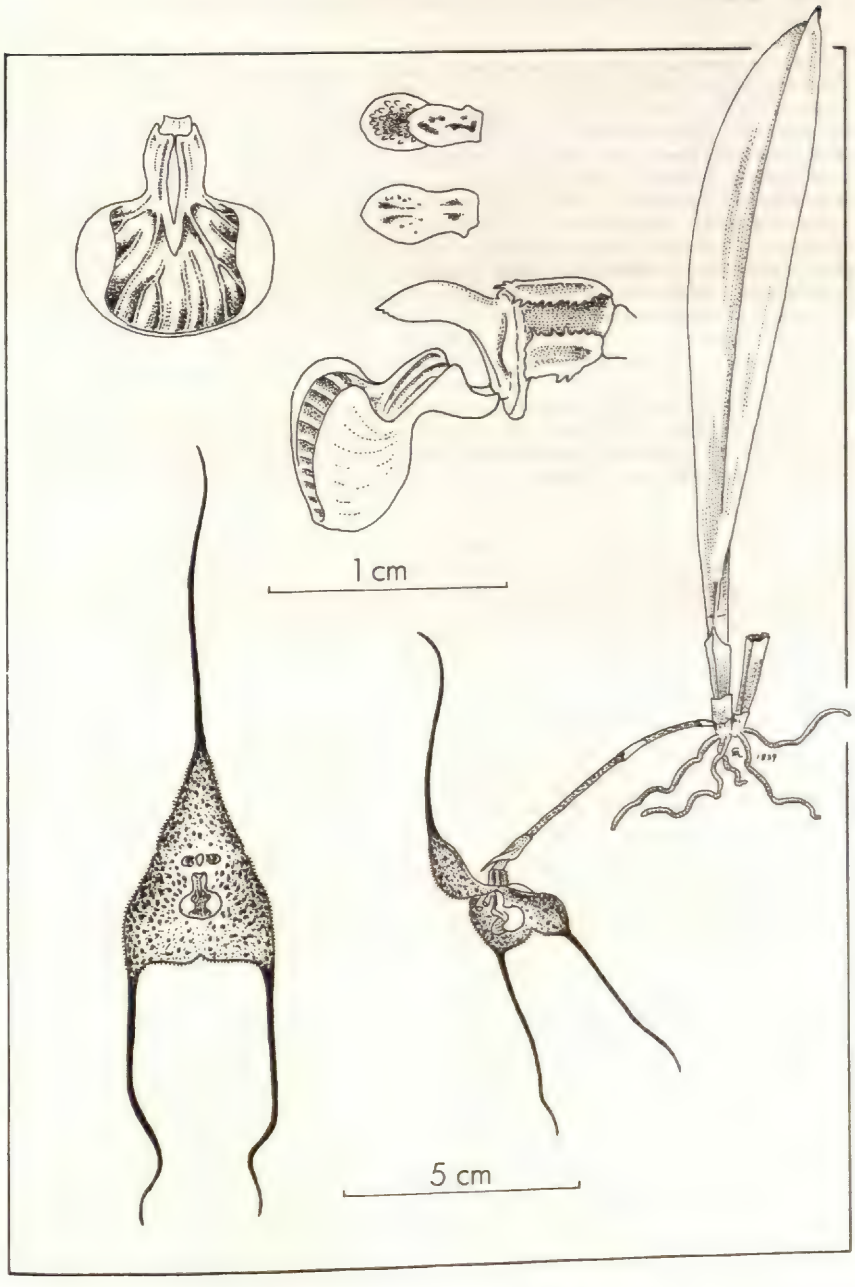


Plate 61. *Dracula nycterina* (Rchb.f.) Luer

Dracula octavioi Luer & Escobar, Orquideología 13: 128, 1979.

Ety.: Named in honor of Hermano Octavio Ospina of Sibundoy, Putumayo, Colombia, who discovered this species.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-4.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 15-32 cm long including an indistinct petiole, 1.5-2 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a slender, sparsely bracted, ascending to descending peduncle 15-20 cm long, from low on the ramicaul; floral bract, tubular, 10-14 mm long; pedicel 18-23 mm long; ovary brown, 6 mm long, smooth, round in cross-section; **sepals** yellowish white, diffusely and minutely dotted with red-brown within and without, covered within by a short, white pubescence, the dorsal sepal transversely elliptical, 14 mm long, 20 mm wide, connate to the lateral sepals for 10 mm to form a campanulate flower, the rounded apex abruptly contracted into a slender, decurved, maroon tail ca. 11 cm long, the lateral sepals broadly ovate to subquadrate, oblique, 24 mm long, 24 mm wide, connate 20 mm into a rectangular synsepal, 34 mm broad expanded, with a broad, shallow mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong, 4 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, recurved; **lip** white, spathulate, 8.5 mm long, 4.5 mm wide, the epichile oblong-ovoid, 5 mm long, 4.5 mm wide, shallowly concave with low, subdenticulate margins, filled with 3 tall, primary lamellae and a few, incomplete, lesser lamellae, the hypochile oblong, 4 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4.5 mm long, with a stout foot 3 mm long.

COLOMBIA: Intend. del Putumayo: epiphytic in cloud forest near Sibundoy, alt. ca. 2300 m, collected by O. Ospina and cultivated by him at Sibundoy, flowered in cultivation, 30 July 1978, *R. Escobar 2001* (Holotype: JAUM; Isotype: SEL); C. Luer illustr. 3092; Valle del Sibundoy, Aug. 1977, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 16 Sept. 1978, *R. Escobar 1901* (JAUM); flowered in cultivation at Colomborquideas, 10 Apr. 1988, *C. Luer 13168* (MO).

This rare species is known from only one area above San Pedro near the town of Sibundoy in southern Colombia where it was first collected by Brother Octavio Ospina of Sibundoy.

Vegetatively *D. octavioi* is characterized by a densely caespitose habit with long, narrow leaves and descending peduncles. The medium-sized, bell-shaped flowers are pale yellowish rose, and diffusely dotted with red-brown. The inner surface is covered by a dense, white pubescence. The apices of the obtuse sepals are produced into long, slender tails. The small epichile of the lip is concave with a few, tall, radiating lamellae.

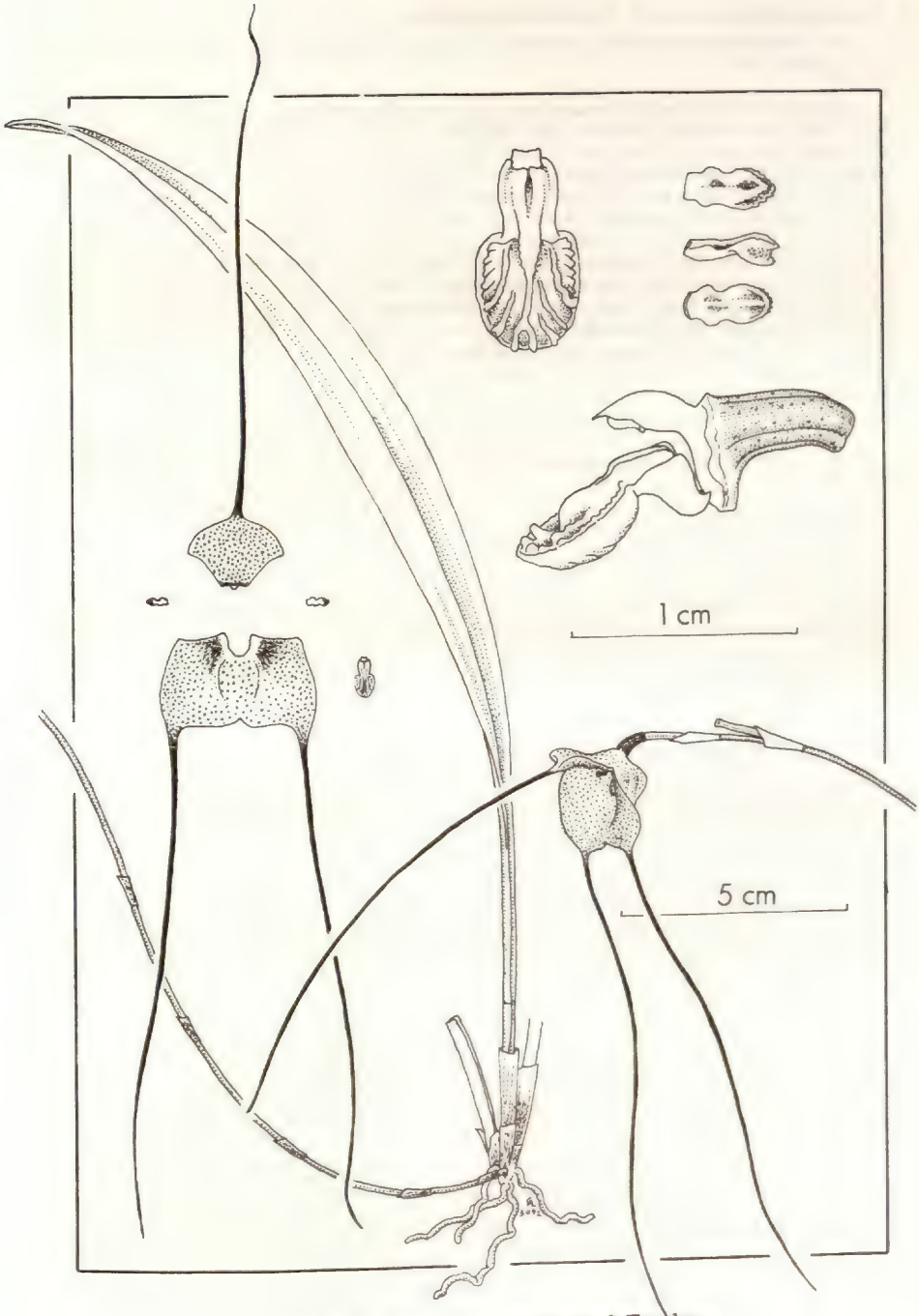


Plate 62. *Dracula octavioi* Luer & Escobar

Dracula ophioceps Luer & Escobar, Orquideología 13: 26, 1978.

Ety: From the Greek *ophioceps*, "like the head of a snake," in allusion to the appearance of the pendent flower.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls erect, 3-4 cm long, enclosed by 2-3 close, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 11-18 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.5-2 cm wide, gradually narrowed below to the base. **Inflorescence** a single flower borne by a slender, purple, perpendicularly descending, multibracted peduncle 15-18 cm long, from low on the ramicaul; floral bract tubular, 7-10 mm long; pedicel 7-9 mm long; ovary dark red-purple, 4-5 mm long, irregularly costate, round in cross-section; **sepals** light yellow, suffused with brown toward the base and externally, covered within by a short, dense pubescence, the dorsal sepal transversely ovate, 11 mm long, 10 mm wide, connate to the lateral sepals for 5 mm to form a suborbicular, sepaline cup, the acute apex contracted into a slender, erect, brownish tail 10-15 mm long, the lateral sepals connate 15 mm into a subquadrate lamina 17 mm long, 16 mm wide together, concave below the middle, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** yellow-orange, marked with brown, cartilaginous, oblong, 3.5 mm long, 1.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter, denticulate; **lip** white, suffused with rose, spathulate-pandurate, 5 mm long, 3 mm wide, the epichile transversely elliptical, 2 mm long, 3 mm wide, concave with several, branching, incomplete radiating lamellae, the hypochile oblong, 3 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Cauca: Totoró, Río Palacé, alt. 1620 m, 17 Aug. 1974, discovered by G. Misas, R. Escobar, G. Escobar and M. & O. Robledo, flowered in cultivation by M. & O. Robledo at La Ceja, 17 Dec. 1975, *R. Escobar 1298* (Holotype: JAUM), flowered in cultivation 11 Oct. 1977, *C. Luer 1983* (SEL); same colection, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13165* (MO).

This species was first collected in 1974 in the mountains above Popayán by Dr. Guillermo Misas and companions. A portion of their collection was cultivated by Dr. and Sra. Oscar Robledo at La Ceja, Colombia, where the flowering plant was illustrated in 1977. To date this species has not been found again.

Dracula ophioceps is characterized by narrow leaves and numerous, long, slender, pendent, single-flowered peduncles. The ovaries are sharply costate. The small, short-tailed, light brownish flowers are cup-shaped and densely white-pubescent within. The tiny, pale pink lip is spathulate with an ill-defined division between the two parts. The shallowly concave, orbicular epichile, no larger than the hypochile, is coursed with several tiny, radiating lamellae.

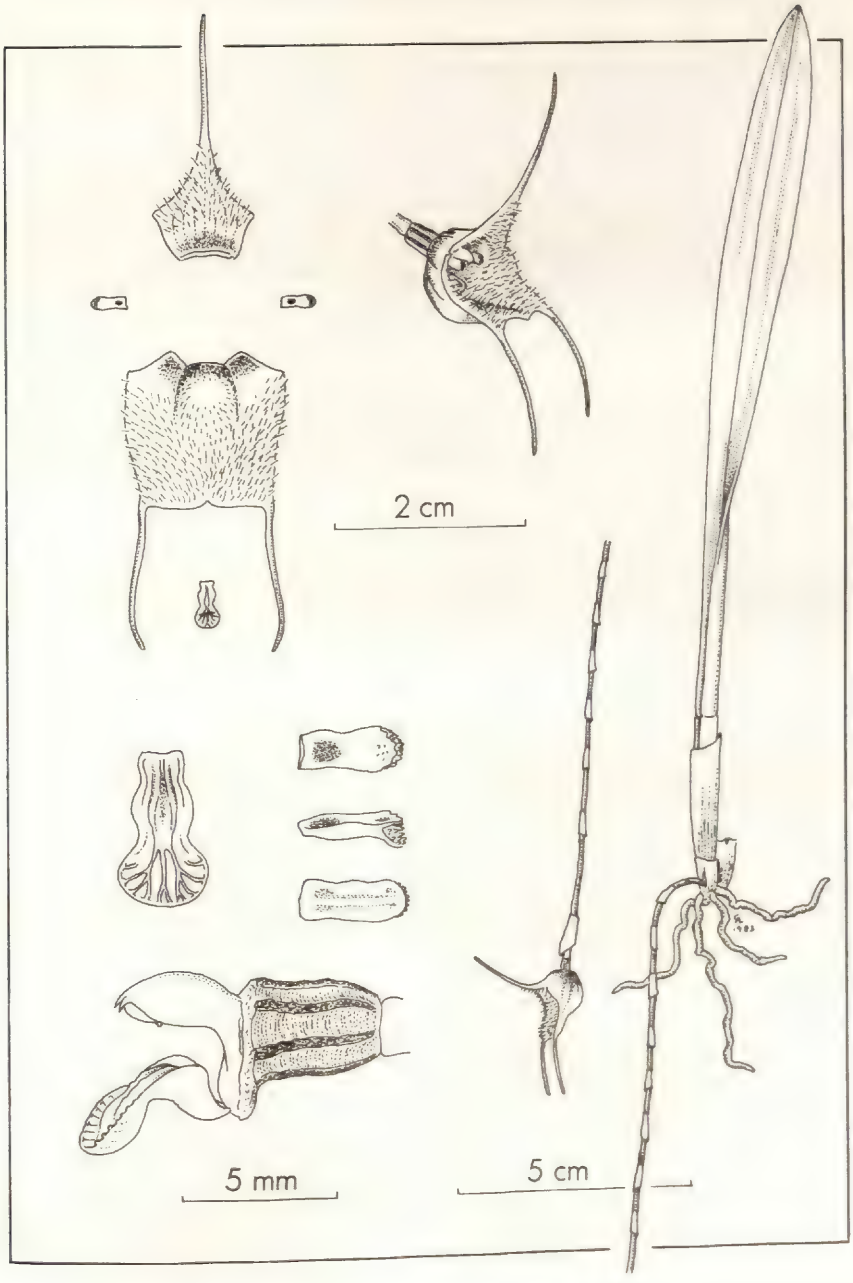


Plate 63. *Dracula ophioceps* Luer & Escobar

Dracula orientalis Luer & Escobar, Selbyana 7: 67, 1982.

Ety.: From the Latin *orientalis*, "of the East," referring to the easternmost locality known for the genus.

Plant large, epiphytic, densely caespitose; roots slender. Ramicauls erect, stout, 3-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, acute, 17-20 cm long including an indistinct, conduplicate petiole, 1.8-2.1 cm wide, gradually narrowed below to the base. **Inflorescence** single-flowered, occasionally followed by a second flower, borne by a slender, descending to horizontal, sparsely bracted peduncle 12-15 cm long, from low on the ramicaul; floral bract tubular, 1.2 cm long; pedicel 3 cm long; ovary 6-7 mm long, round in cross-section; **sepals** white, covered by dark purple-brown dots, more or less coalescing toward the bases, shortly spiculate-pubescent within, the dorsal sepal suborbicular 15 mm long, 20 mm wide, connate to the lateral sepals for 7 mm to form a campanulate, sepaline cup, the rounded apex contracted abruptly into a slender, dark red-purple tail up to 10 cm long, the lateral sepals suborbicular, oblique, 23 mm long, 18 mm wide, connate 20 mm into a broad, obtuse mentum, the rounded apices contracted into tails up to 12 cm long, similar to that of the dorsal sepal; **petals** rose, marked with brown, cartilaginous, oblong, 3 mm long, 1.75 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina rounded, denticulate, the outer lamina recurved; **lip** white, spathulate, 8 mm long, 5.5 mm wide, the epichile suborbicular, 5 mm long, 5.5 mm wide, concave with erect, denticulate margins, with a primary carina flanked on either side by 2-4 lesser, incomplete laminae, the hypochile oblong, 3 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, semiterete, 3.5 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Norte de Santander: Munic. of Toledo: epiphytic in cloud forest between Toledo and Sarare, Alto de Santa Inés, alt. 2050 m, 24 May 1982, *C. Luer, R. Escobar & D. Portillo 7935* (Holotype: SEL; Isotype: COL); same area, collected by E. Valencia 1987, flowered in cultivation at Colombor-quídeas, 10 Apr. 1988, *C. Luer 13155* (MO).

This species is apparently endemic in a scrubby cloud forest where it was found with *Masdevallia odontocera* in the far Eastern Cordillera of Colombia, almost within sight of the mountains of westernmost Venezuela. It grows farther east than any heretofore known species of the genus.

Although similar vegetatively to those species with long, narrow leaves, *D. orientalis* is identified by the suborbicular, white sepals diffusely dotted with dark purple-brown and connate into a shallow cup, and very long, slender tails. The round, concave epichile of the lip contains a primary lamella flanked by a few, irregular fragments of lesser lamellae.

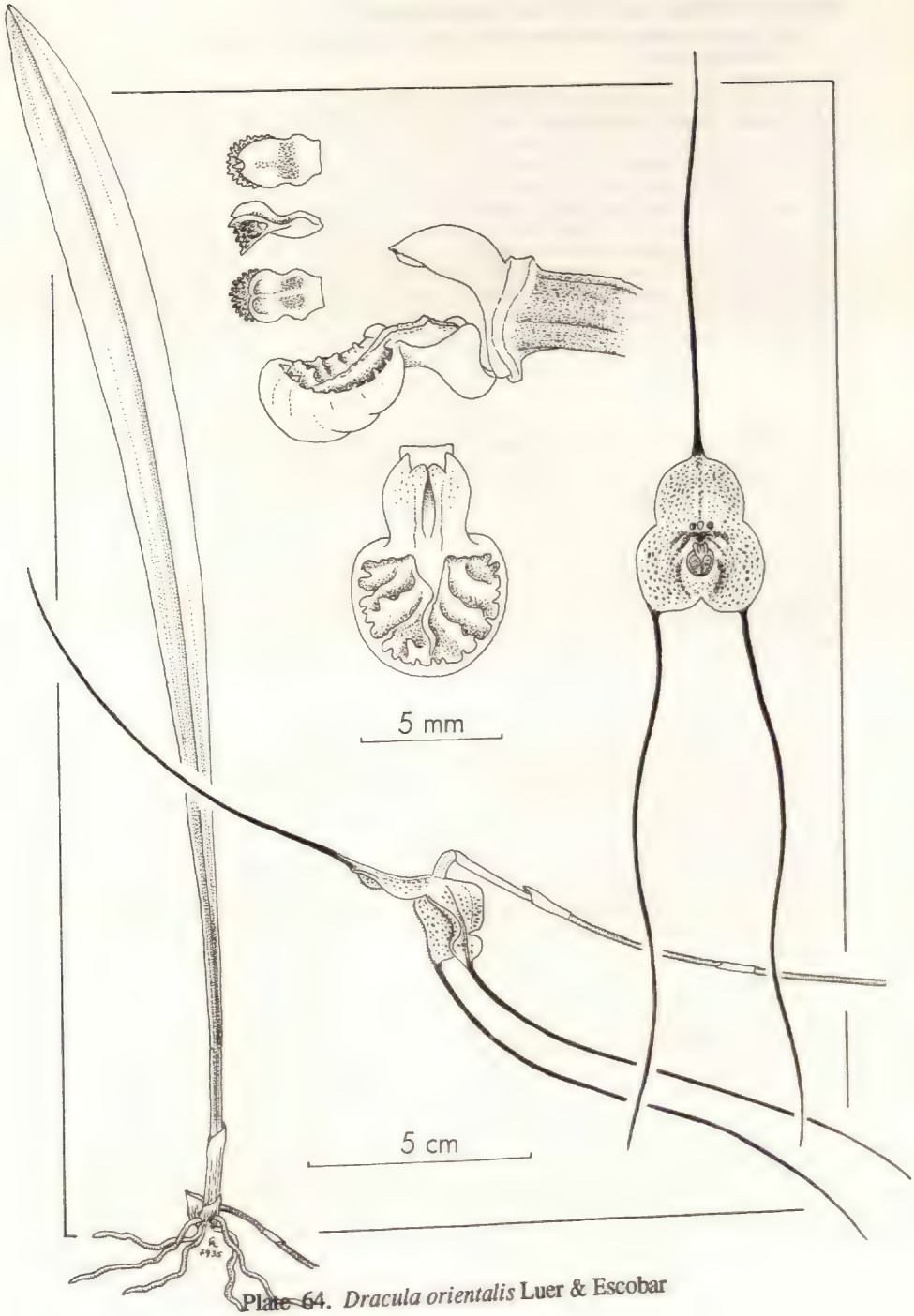


Plate 64. *Dracula orientalis* Luer & Escobar

Dracula ortiziana Luer & Escobar, Orquideología 19: 40, 1993.

Ety.: Named in honor of Father Pedro Ortiz V., S.J. of Bogotá, Colombia, well-known authority on Colombian orchids.

Plant medium in size, caespitose; roots coarse. Ramicauls stout, erect, 1.5-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 12-13 cm long including an indistinct petiole 1-1.5 cm long, 2-2.7 cm wide, gradually narrowed below into the subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme up to 2 cm long, borne by a slender, ascending peduncle up to 16 or more cm long, from low on the ramicaul; floral bract tubular, 8 mm long; pedicel 8-10 mm long; ovary 5-6 mm long, lightly subverrucose, round in cross-section; **sepals** dull rose, suffused with dark rose-purple within, cellular-pubescent within, the dorsal sepal ovate, 25 mm long, 20 mm wide, connate to the lateral sepals for 8 mm to form a shallowly cupped flower, the apex acute, contracted into a slender, pale rose tail 38 mm long, the lateral sepals connate 25 mm into an oblong lamina, 30 mm long, 25 mm wide, with a deep, narrow mentum, the apices spreading, subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** rose, marked with purple-brown, cartilaginous, oblong, 3 mm long, 1 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina obtuse, recurved; **lip** rose, spathulate, 8 mm long, 4 mm wide, the epichile unevenly obovoid, convex, 5 mm long, 4 mm wide, with radiating, dividing lamellae from three central carinae to an irregularly toothed margin, the hypochile oblong, 3 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** light rose, stout, semiterete, 5 mm long, with a stout foot nearly as long.

COLOMBIA: Dept. of Valle del Cauca: Munic. of Ginebra, La Cecilia, alt. 2200-2500 m, collected by J. L. Aguirre, flowered in cultivation at Colomborquídeas, 17 Dec. 1990, *R. Escobar 4085* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 14925.

Only one plant of this rare species was discovered recently in a remnant of forest in the department of Valle del Cauca by the professional collector J. L. Aguirre. The clustered leaves are long and narrow and the peduncles are more or less ascending. The deep rose-purple sepals are shallowly cupped and long-tailed. The epichile of the lip is obovate, convex, and irregularly laminate with unevenly toothed margins. The epichile frequently appears as if it were deformed with one or both sides more or less twisted or bent. Occasionally symmetrical lips are produced. *Dracula ortiziana* is one of only a few species characterized by a convex epichile.

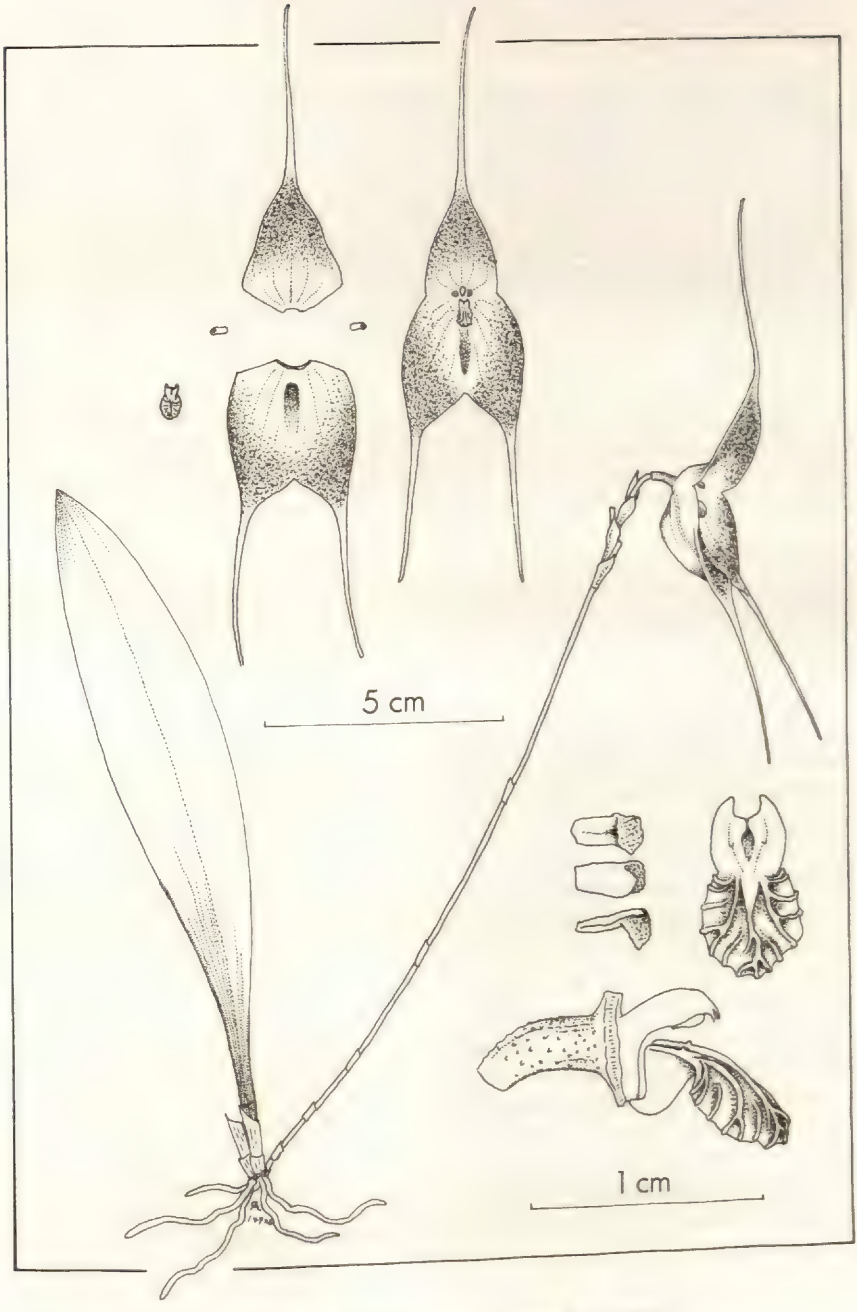


Plate 65. *Dracula ortiziana* Luer & Escobar

Dracula papillosa Luer & Dodson, sp. nov.

Ety.: From the Latin *papillosus*, "papillose," referring to the markedly verrucose, elongate petals.

Planta floresque mediocres, sepalis intus breviter et sparsim papillosis, petalis elongatis papillosissimis, labelli epichilio anguste ovato obtuso leviter concavo venoso.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 2-2.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute to subacute, 15-19 cm long including an indistinct petiole 2-3 cm long, 2-2.5 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme, ca. 2 cm long, borne by a descending peduncle ca. 5 cm long, from low on the ramicaul; floral bract, tubular, oblique, 6-8 mm long; pedicel 5 mm long; ovary 4 mm long, round in cross-section; **sepals** pale yellow, suffused with red-brown at the base, diffusely and sparsely papillo-verrucose within, the dorsal sepal broadly ovate, 11 mm long, 13 mm wide, connate to the lateral sepals for 5 mm to form a flat, widely spread flower, the apex subacute to obtuse, contracted into a slender, erect, red-purple tail 5 cm long, the lateral sepals connate 9 mm into a broadly oblong lamina, 13 mm long, 20 mm broad together expanded, forming a broad, shallow mentum beneath the lip, the apices obtuse, contracted into slender, tails similar to that of the dorsal sepal; **petals** prominently protruding, heavily suffused with black, cartilaginous, oblong, 5 mm long, 1.75 mm wide, the apical portion obtuse, as long as the basal portion, indistinctly bivalvate, densely papillose on the inner surface, the inner lamina indistinct, denticulate-papillose, the outer lamina rounded; **lip** white, spathulate, 8 mm long, 3.25 mm wide, the epichile ovate, superficially concave, 4.5 mm long, 3.35 mm wide, with the margins flat between terminations of lamellae, with 3 primary carinae and several fragments radiating to the margins, the hypochile oblong, 3.5 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally between a pair of plates, the concave base hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a stout foot equally long.

ECUADOR: Prov. of Esmeraldas: epiphytic in wet forest west of Lita, alt. 300 m, collected by C. H. Dodson, flowered in cultivation in Quito by A. Hirtz, Dec. 1991, *A. Hirtz 5707* (Holotype: MO), C. Luer illustr. 16222.

This species was discovered by Calaway Dodson in wet, lowland forest in northwestern Ecuador and cultivated by Alexander Hirtz in Quito, where it flowers very well in spite of the cool, high altitude. Several searches in the same area have failed to produce another plant.

The small, whitish, widely spread, long-tailed flowers are sparsely covered within by short papillae. The flowers are superficially similar to the Colombian *D. houtteana-psittacina* complex. The most distinct features of *D. papillosa* are the elongated petals with papillose apices that protrude far beyond the column. The narrowly ovate epichile of the lip is slightly concave with the margins flat between marginal fragments of lamellae radiating from three central carinae.

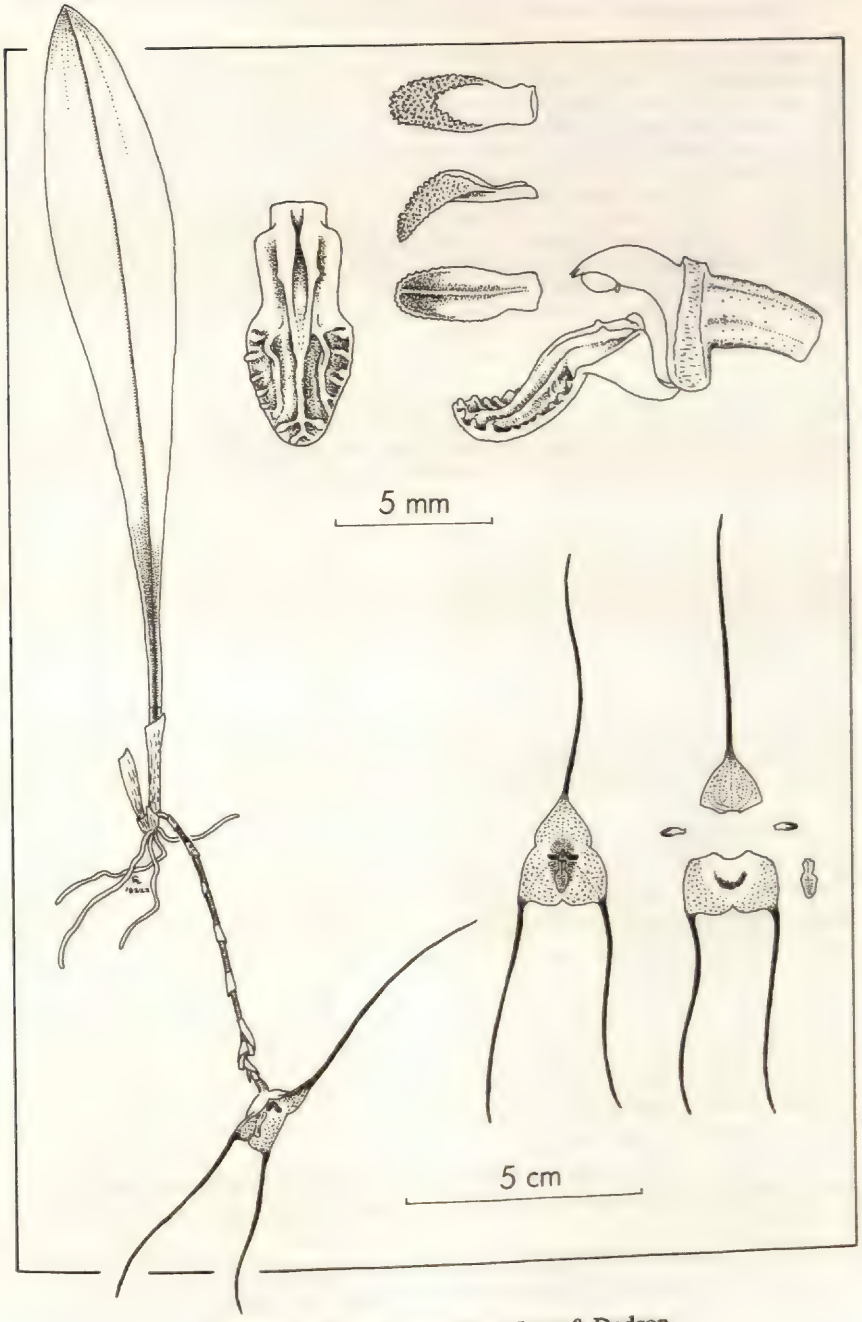


Plate 66. *Dracula papillosa* Luer & Dodson

Dracula pholeodytes Luer & Escobar, Selbyana 7: 68, 1982.

Ety.: From the Greek *pholeodytes*, "one who lurks in a cave," in allusion to the appearance of the central apparatus within the deeply cupped, black interior of the flower.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 18-23 cm long including an indistinct petiole, 1.3-2.1 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a purplish, sparsely bracted, horizontal to descending peduncle 7-12 cm long, from low on the ramicaul; floral bract, tubular, 9-11 mm long; pedicel 25-30 mm long; ovary red-brown, 7 mm long, subverrucose, round in cross-section; **sepals** white, suffused with brown externally and glabrous, densely verrucose-pubescent and purple-black within, white on the margins near the apices and in the mentum of the synsepal where it is spotted with purple, the dorsal sepal transversely ovate, concave, 15 mm long, 23 mm wide, connate to the lateral sepals for 11 mm to form a deeply cupped flower, the rounded apex abruptly contracted into a slender, erect, blackish tail 5-6 cm long, the lateral sepals transversely ovate, oblique, concave, 20 mm long, 22 mm wide, connate 22 mm to form a broad, deep mentum, the rounded apices contracted into tails similar to that of the dorsal sepal; **petals** light tan, marked with brown, cartilaginous, oblong, 3 mm long, 1.75 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with rose, spathulate, 6.5 mm long, 5.5 mm wide, the epichile transversely elliptical, 4 mm long, 5.5 mm wide, concave with erect, subdenticulate margins and a central carina flanked on either side by a lesser carina and several, incomplete, raised veins, the hypochile oblong, 3 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a thick foot 2 mm long.

COLOMBIA: without locality, collected by H. Schmidt-Mumm, flowered in cultivation at La Ceja by M. & O. Robledo, 10 Oct. 1977, *C. Luer 1976* (Holotype: SEL; Isotype: JAUM); received from H. Schmidt-Mumm in 1972, flowered in cultivation by M. & O. Robledo at La Ceja, 8 Nov. 1974, *R. Escobar 1370* (JAUM). Dept. of Boyacá: near Arcabuco, alt. 2500 m, 19 Aug. 1962, *H. Schmidt-Mumm 117* (COL); same area, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13128* (MO). Without locality: 27 Nov. 1889, *John Weathers 96* (BM).

Although similar to the well-known, small, cup-flowered *Dracula benedictii*, the flower of this species is considerably larger. The sepaline cup of both species is whitish or lightly suffused externally with purple, while the interior of the cup is purple-black. Deep within the dark cup on the back wall, the column flanked by eyelike petals with the lip below appears to be an obscure figure lurking within the depths. Since Edouard Morren's very apropos name "troglodytes," meaning a cave dweller, had been applied later to Reichenbach's *D. benedictii*, a comparable epithet was chosen for this species to preserve the idea.

Dracula pholeodytes is apparently endemic in a small area of forested valley in the Eastern Cordillera of Colombia where it was first discovered by Helmuth Schmidt-Mumm of Bogotá. It is still to be found in this vicinity growing with *D. diabola*, *D. vinacea*, *Masdevallia corniculata* and *M. encephala*.

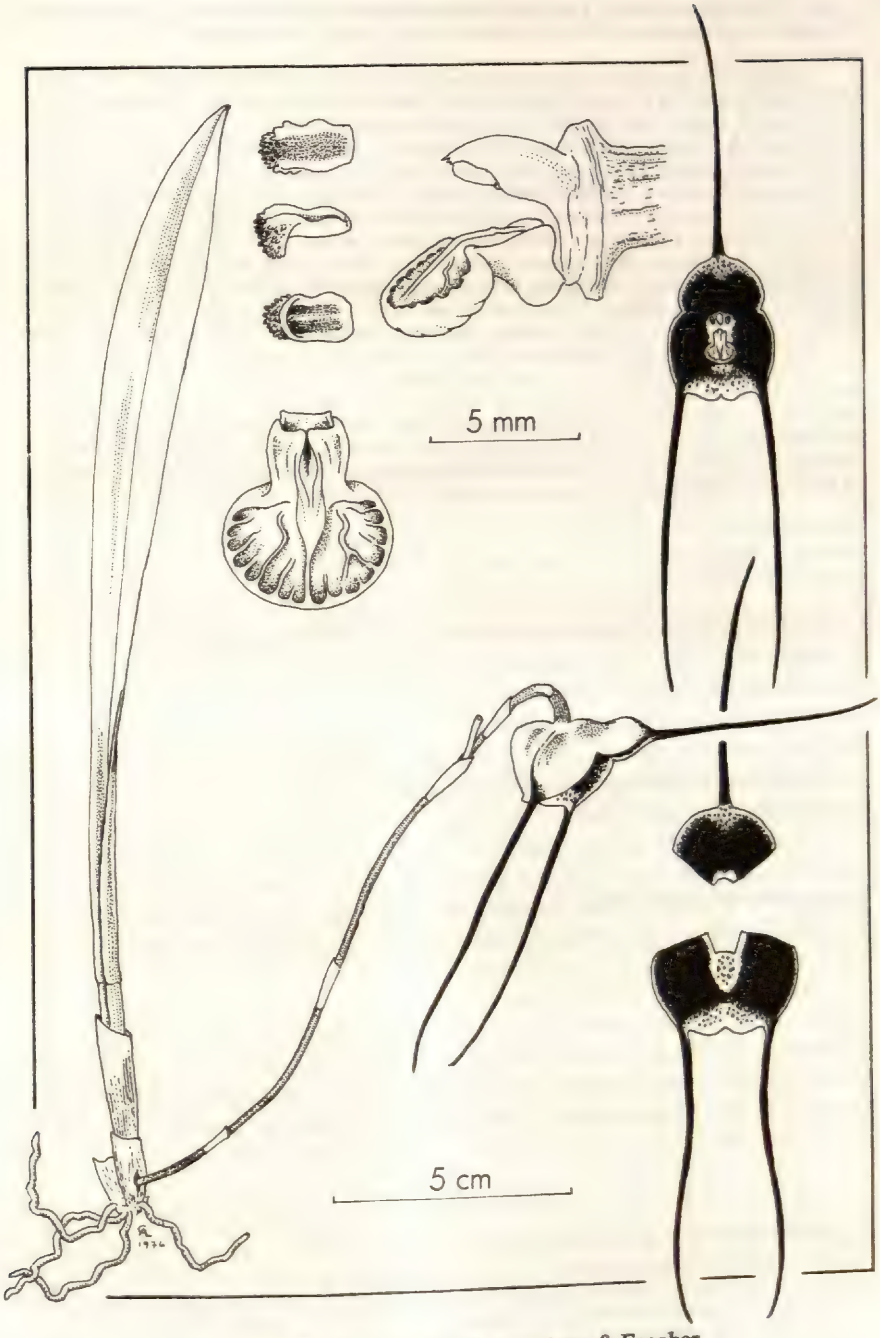


Plate 67. *Dracula pholeodytes* Luer & Escobar

Dracula pileus Luer & Escobar, Orquideología 13: 132, 1979.

Ety.: From the Latin *pileus*, "a cap, or the umbrella-shaped cap of a mushroom," referring to the similarity in appearance of the lip to an inverted cap, the pileus, of a mushroom.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, lightly plicate, narrowly obovate, acute, 18-25 cm long including an indistinct petiole, 3.5-4.5 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a purplish, sparsely bracted, descending peduncle 20-45 cm long, from low on the ramicaul; floral bract, tubular, 12 mm long; pedicel 13 mm long; ovary dark purple, 7 mm long, smooth, round in cross-section; **sepals** whitish, suffused with red externally, diffusely dotted with red within and covered by a short, white, pubescence, the dorsal sepal broadly ovate, 28 mm long, 25 mm wide, connate to the lateral sepals for 10 mm to form a widely spread, flat flower, the obtuse to rounded apex contracted into a slender, sometimes acutely reflexed, bright deep rose tail 12-13 cm long, the lateral sepals broadly ovate, oblique, 35 mm long, 30 mm wide, connate 25 mm into a broad, shallow mentum, the obtuse apices produced into long, slender tails similar to that of the dorsal sepal; **petals** ivory, marked with red-brown, cartilaginous, oblong, 5 mm long, 2.5 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter, denticulate, the outer lamina recurved; **lip** white, spathulate, 16 mm long, 15 mm wide, the epichile suborbicular, 13 mm long, 15 mm wide, shallowly concave with the sides lightly incurved, with multiple, elevated, radiating, branching and incomplete veins within from a verrucose, midline callus, lightly marked with brown, the hypochile oblong, 6 mm long, 5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 5.5 mm long, with a thick foot 5 mm long.

COLOMBIA: flowered in cultivation by M. & O. Robledo at La Ceja, 19 July 1978, *R. Escobar 1880* (Holotype: JAUM; Isotype: SEL); C. Luer illustr. 2930; flowered in cultivation at La Ceja, 9 Apr. 1988, *C. Luer 13091* (MO).

The first flowers of this taxon were produced in 1978 by a plant found growing in a large, mixed bed of *Dracula bella* and *Dracula chimaera* in the orchid collection of Dr. Oscar Robledo and Martha Posada de Robledo at La Ceja, Colombia. These two well-known species, collected near Frontino in the Western Cordillera, had been purchased from a local collector three years previously. It was assumed that the unknown plant had been collected without flowers with the others and was now flowering for the first time.

Subsequently, similar flowers have been produced by volunteer seedling plants that have appeared in or on the containers of other orchids in the greenhouse. The plantlets flower usually within two years after discovery. Suspicion is great that the taxon described as *D. pileus* is a spontaneous, greenhouse hybrid between *D. bella* and *D. chimaera*, but as yet there is no proof.

Like *D. chimaera* the large leaves are broad and more or less plicate. The peduncles are long and descending, and they produce a large, flat flower that faces downward. The long, slender tail of the dorsal sepal sometimes reflexes acutely to lie more or less between the tails of the lateral sepals. The sepals are light yellowish and diffusely dotted with red. The large, white, rounded, mushroomlike lip is remarkably different from the lip of either of the reputed parents.

Dracula platycrater (Rchb.f.) Luer, Selbyana 2: 196, 1978.

Bas.: *Masdevallia platycrater* Rchb.f., Flora 69: 559, 1886.

Ety.: From the Greek *platys*, "broad" and *krater*, "a bowl," in reference to the shape of the epichile. Reichenbach probably intended to contrast the flat or convex epichile with the concave epichile of the other related species with which he was familiar.

Syn.: *Masdevallia lowii* Rolfe, Gard. Chron. 1:416, 1890.

Ety.: Named for Messrs. Hugh Low & Co., who imported imported plants in 1889.

Syn.: *Dracula lowii* (Rolfe) Luer, Selbyana 2: 196, 1978.

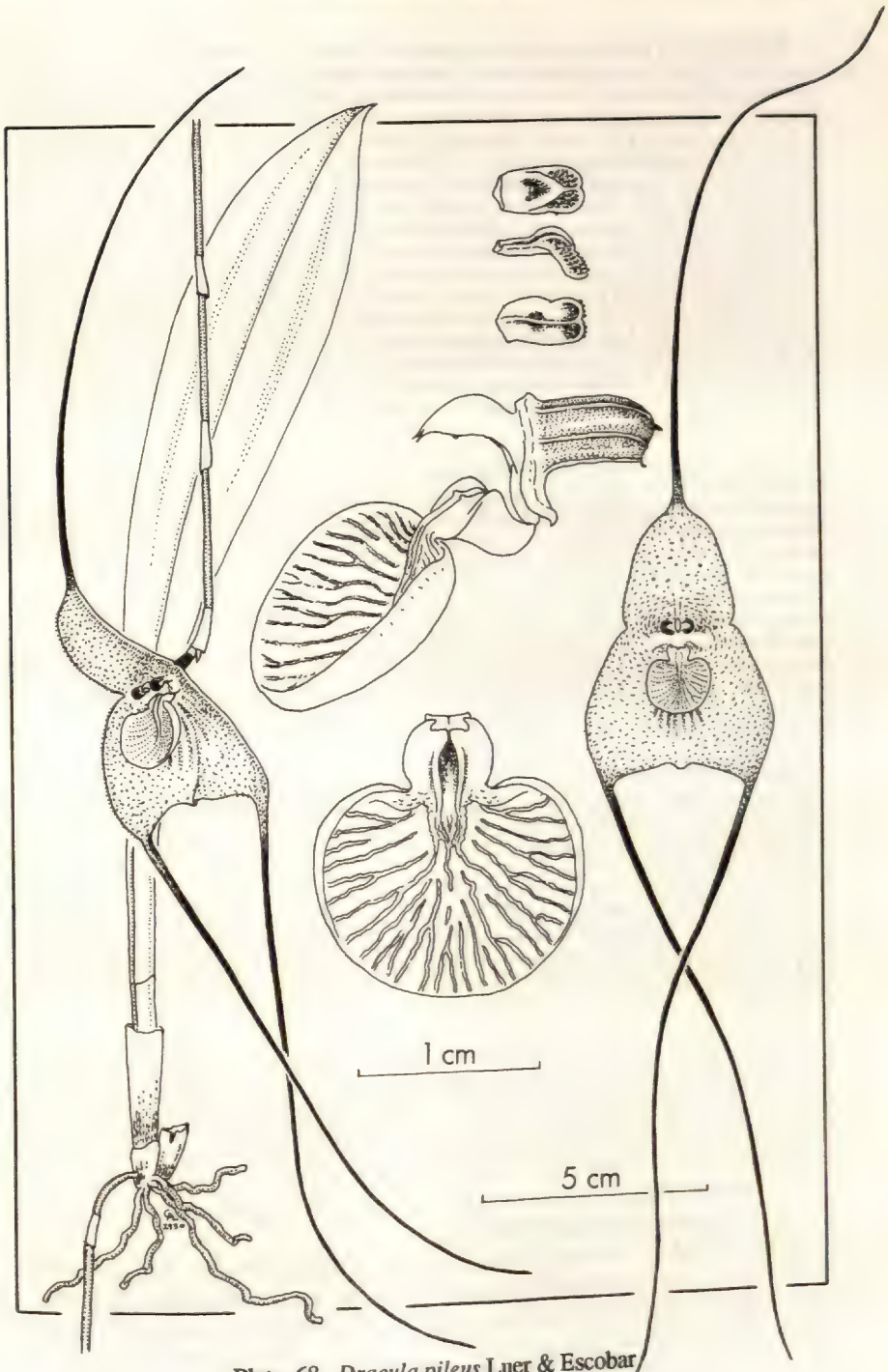


Plate 68. *Dracula pileus* Luer & Escobar

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-20 cm long including an indistinct petiole 2-5 cm long, the blade elliptical, acute, 2-3.2 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a loose, successively several-flowered raceme up to 17 cm long, borne by a horizontal to descending peduncle 15-35 cm long, with a few distant bracts, from low on the ramicaul; floral bract tubular, 7-12 mm long; pedicel 15-30 mm long; ovary, 8 mm long, subverrucose, round in cross-section; **sepals** white or greenish white, the inner surface diffusely covered by numerous, small, more or less confluent, purplish spots, all three sepals oblong, 25-40 mm long, 13-16 mm wide, connate ca. 5 mm to form a widely spread, flat flower, the lateral sepals forming a shallow mentum, the acute apices contracted into similar, slender, white to greenish white tails 15-35 mm long; **petals** white, marked with purple-brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex round, bivalvate, papillose between the laminae, the inner lamina obtuse and denticulate; **lip** rose, spathulate, 6 mm long, 4 mm wide, the epichile ovate with the apex rounded, acutely deflexed on the hypochile, 3.5 mm long, 4 mm wide, flat to slightly convex, with a central, verrucose callus flanked by a pair of verrucose lamellae with multiple, irregular, lesser, raised veins radiating to the margins, verrucose extemally, the hypochile oblong, 3 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellowish white, semiterete, 4.5 mm long, with a stout foot 2 mm long.

COLOMBIA: Dept. of Caldas: Sierra de Belalcazar, alt. 1500-1700 m, 27 Oct. 1883, *F. C. Lehmann 3363* (Holotype: W; Isotypes: BM, BR, G); Cordillera de Belalcazar between Cartago and Supia, 1882, *F. C. Lehmann 7215* (W); crest of Cordillera de Belalcazar, alt. 1800 m, 24 Aug. 1884, *F. C. Lehmann 4144* (G); old prov. of Cauca, without locality or collector, probably F. C. Lehmann, who distributed some of his plants through Hugh Low & Co., flowered in 1890 in the collection of *S. Courtauld s.n.* (K, type of *M. lowii*). Dept. of Antioquia: Munic. of Cocorná, El Picacho, alt. 1800-2000 m, Sept. 1973, collected by J. M. Sema, flowered in cultivation by M. & O. Robledo at La Ceja, 16 Apr. 1975,*R. Escobar s.n.* (JAUM); Río Cocorná, collected by M. Webb, 1983, flowered in cultivation at J & L Orchids, Easton, CT, 25 Apr. 1987, *C. Luer 12828* (MO). Dept. of Chocó: Munic. of Carmen de Atrato, Alto de La Sirena, alt. 2300 m, Dec. 1974, collected by P. Ortiz & S. Restrepo, flowered by S. Restrepo at El Retiro, 16 Dec. 1977, *R. Escobar s.n.* (JAUM). Dept. of Quindio: Río Barbas, alt. 2050 m, 5 Feb. 1987, *R. Escobar & E. Valencia 3786* (JAUM). Dept. of Risaralda: Munic. of Pueblo Rico, vereda Yarumal, alt. ca. 1800 m, May 1972, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 30 Dec. 1973, *R. Escobar 1412* (JAUM). Valle del Cauca: Lago Calima, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 5 May 1993, *C. Luer 16674* (MO).

Reichenbach's original description of *Masdevallia platycrater* was drawn from a specimen collected by Consul Lehmann (*Lehmann 3363*) in the old province of Cauca (now in the department of Caldas). Rolfe redescribed the species in 1890 as *Masdevallia lowii* from an imported plant cultivated by Hugh Low & Co.. In her monograph on *Masdevallia* in 1896, Woolward identified this species as *M. trinema*. In his monograph of *Masdevallia* in 1925, Kränzlin listed *Lehmann 3363* under *M. trinema*, separately from *M. lowii*.

Although widely distributed in the moist forests of the Western and the Central Cordillera of Colombia, plants of *D. platycrater* are found infrequently. The flowers are easily recognized by the three, rather similar, more or less narrowly oblong, widely spread, shallowly connate sepals. The small, rounded epichile of the rose-colored lip is acutely deflexed upon the hypochile. Instead of being concave, the epichile is convex with the veins raised above the surface.

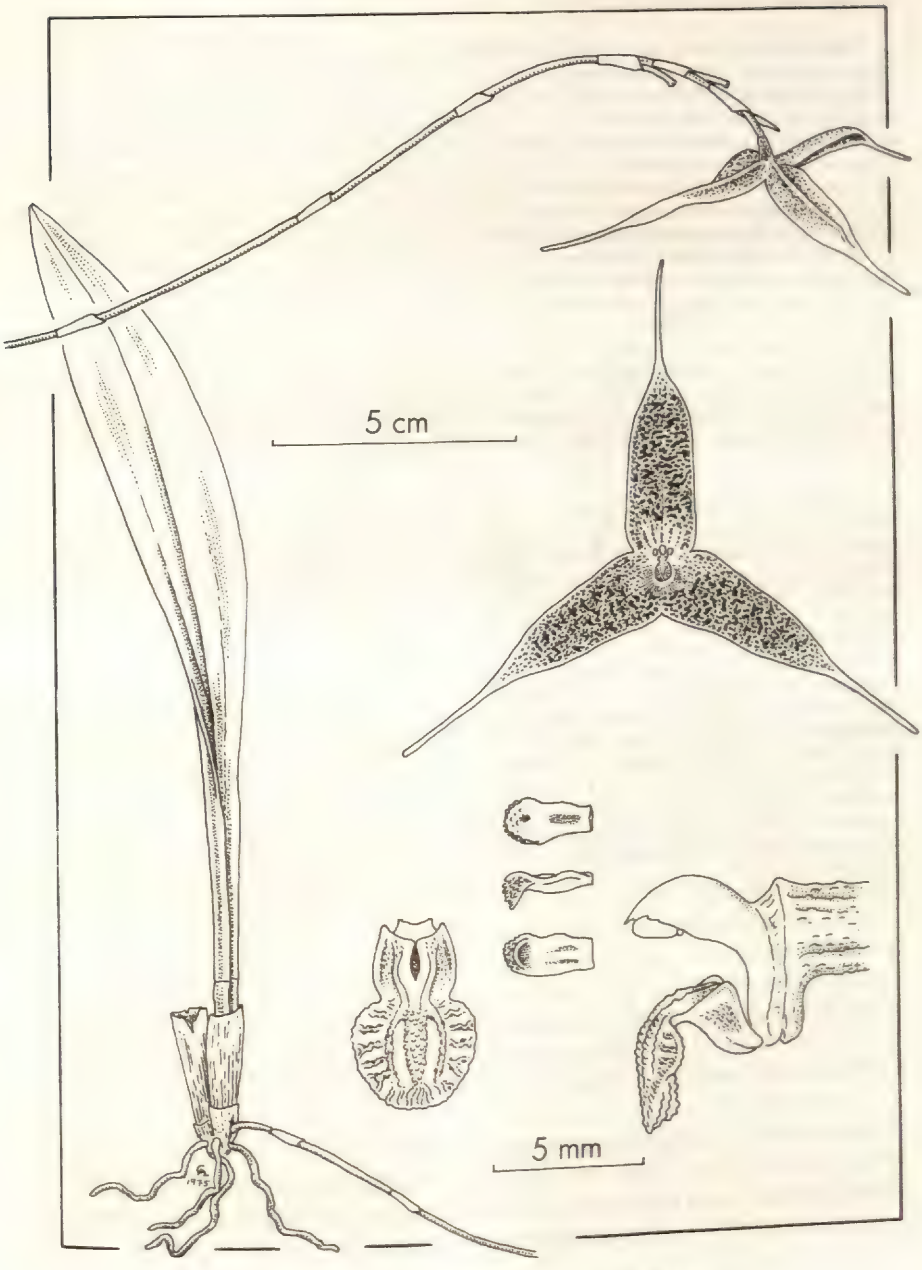


Plate 69. *Dracula platycrater* (Rchb.f.) Luer

Dracula polyphemus (Luer) Luer, Selbyana 2: 196, 1978.

Bas.: *Masdevallia polyphemus* Luer, Phytologia 39: 224, 1978.

Ety.: Named for Cyclops, the one-eyed monster of Greek mythology, who imprisoned Odysseus in a cave and ate some of his companions.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 3-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, lightly plicate, carinate, 12-25 cm long including an indistinct petiole 2-4 cm long, the blade elliptical, acute, 3-5 cm wide, the base gradually narrowed into the conduplicate petiole. **Inflorescence** a successively few-flowered raceme, borne by a purple, horizontal to descending, slender, sparsely bracted peduncle 10-12 cm long, from low on the ramicaul; floral bract tubular, 15 mm long; pedicel 15-20 mm long; ovary dark green, 7 mm long, subverrucose, round in cross-section; **sepals** densely spotted with brownish maroon on pinkish buff, the spots coalescenging toward the apices and margins, greenish white centrally, covered by a short, dense pubescence, the dorsal sepal triangular-ovate, 30 mm long, 22 mm wide, connate to the lateral sepals for 10 mm to form a widely spread flower, the acute apex contracted into a slender, erect, maroon tail ca. 7-8 cm long, the lateral sepals obliquely ovate-triangular, subacute, 30 mm long, 25 mm wide, connate 18 mm into a transversely oblong lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, obovate-spathulate, 6.5 mm long, 3 mm wide, the apex rounded, bivalvate, densely papillose between the laminae, the inner lamina much shorter; **lip** snow white, spathulate, 13 mm long, 12 mm wide, the epichile transversely trapeziform, 10 mm long, 12 mm wide, shallowly concave with multiple, low, radiating veins, the hypochile oblong, 5 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, semiterete, 6 mm long, with a stout foot 4 mm long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest between Quito and Santo Domingo, above Chiriboga, alt. ca. 2000 m, 1975, B. Malo, s.n., flowered in cultivation at Tarqui near Cuenca, 13 Feb. 1978, *C. Luer 2565* (Holotype: SEL); same collection, flowered in cultivation by M. & O. Robledo at La Ceja, 8 May 1978, *R. Escobar 1850* (JAUM); epiphytic in forest along Río Silante, Finca Canchacato, alt. 2000 m, 28 Oct. 1979, *C. Luer, J. Luer & A. Hirtz 4690* (SEL); between Tandapi and Sarapullo, alt. 1500-1800 m, 2 Mar. 1986, *C. Dodson, C. Luer, A. Hirtz & A. Embree 16357* (MO). Prov. of Imbabura: Selva Alegre, alt. 1600 m, collected by A. Andreetta & M. Portilla, flowered in cultivation at Paute, 24 May 1988, *C. Luer 13626* (MO); Selva Alegre, alt. 1400 m, May 1989, *A. Hirtz & X. Hirtz 4230* (MO).

This species with an unusual lip is apparently endemic in the forests of the western slopes of central Ecuador where it is not uncommon. It was first discovered in 1975 by Benigno Malo who cultivated it at his finca at Tarqui near Cuenca.

Vegetatively *Dracula polyphemus* is indistinguishable from all the other broad-leaved species of the genus. The large flowers, densely pubescent within and densely spotted with a dark reddish brown, are readily recognized by the unique, large, white, lightly concave, transversely trapeziform lip.

Plate 70. *Dracula polyphemus* (Luer) Luer

Dracula portillae Luer, Phytologia 47: 61, 1980.

Ety.: Named in honor of Mario Portilla, at the time curator of orchids at Hostería Uzhupud near Gualaceo, Ecuador, who discovered this species.

Plant medium in size, epiphytic, repent, the rhizome more or less ascending, 10-20 cm or more long, 0.5-3 cm long between ramicauls; roots slender. Ramicauls slender, ascending, 2-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly elliptical, acute, 10-18 cm long including an indistinct petiole, 1-1.6 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a congested, successively few-flowered raceme, borne by an erect, slender, sparsely bracted peduncle 12-17 cm long, from near the middle of the ramicaul; floral bract tubular, 7-12 mm long; pedicel 5-7 mm long; ovary 5 mm long, round in cross-section; **sepals** pale yellowish, striped by ca. 7 narrow, longitudinal rows of brown, capitate cells, yellow externally, the inner surface microscopically glandular-cellular, the dorsal sepal ovate, 17 mm long, 7 mm wide, connate to the lateral sepals for 1.5 mm to form a shallow, gaping cup, the apex acute, contracted into a slender, erect, light brown tail 2 cm long, the lateral sepals ovate, oblique, 16 mm long, 7 mm wide, connate 8 mm, the apices acute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple-brown, cartilaginous, oblong, 2.75 mm long, 1 mm wide, the apex bivalvate, papillose between the laminae, both laminae rounded, lightly denticulate, the outer lamina recurved; **lip** cream, lightly dotted with red-purple, thick, obovate-pyriform, 8 mm long, 3.5 mm wide, the epichile obovoid, rounded, smooth, convex, 7 mm long, 3.5 mm wide, the hypochile oblong, 2 mm long, 1 mm wide, with thick, obtuse, marginal angles, shallowly cleft centrally, the concave base hinged to the column-foot; **column** yellow-white, semiterete, 3.5 mm long, with a stout foot 2 mm long.

ECUADOR: Prov. of Morona-Santiago: epiphytic in wet forest between Gualaceo and Limón, alt. 2000 m, 19 Sept. 1980, *C. Luer, J. Luer, A. Andreetta & M. Portilla 5477* (Holotype: SEL); flowered in cultivation at Colomborquídeas, 18 Mar. 1989, *C. Luer 14236* (MO); flowered in cultivation at Colomborquídeas, Dec. 1989, *R. Escobar 4043* (JAUM, MO).

This species, related to the larger *Dracula dodsonii*, is apparently endemic in one wet, densely forested valley in southeastern Ecuador where it was first discovered by Mario Portilla. *Dracula portillae* is characterized by the ascending-repent habit with narrow leaves slightly surpassed by erect peduncles with a slow succession of small, brown-striped flowers. The white lip is obovoid without any demarcation between epichile and hypochile. The rounded apex is smooth and convex and the hypochile is shortly and shallowly cleft.

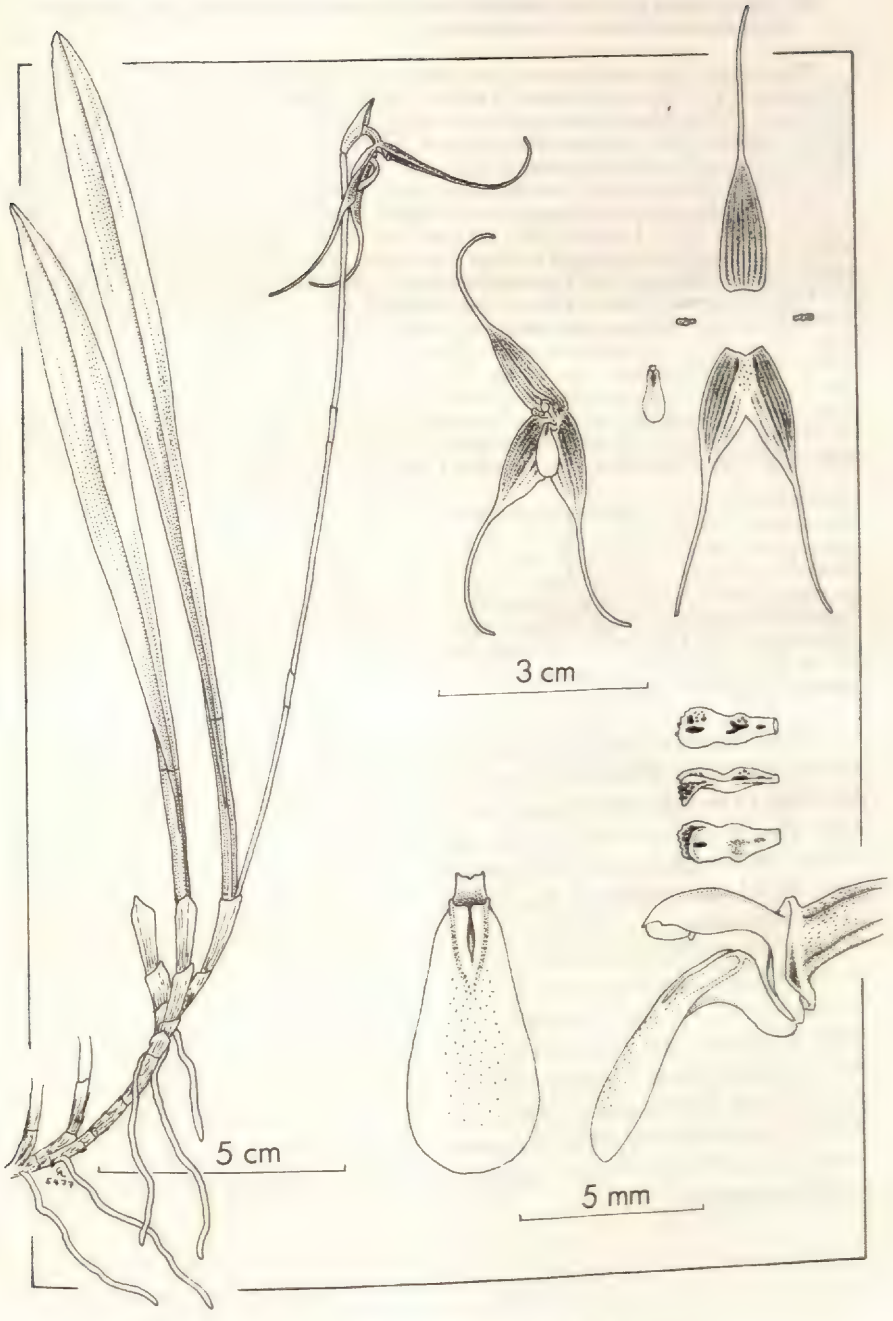


Plate 71. *Dracula portillae* Luer & Andreetta

Dracula posadarum Luer & Escobar, Orquideología 15: 31, 1981.

Ety.: Named in honor of Sr. Jaime Posada and Sra. Ligia Moreno de Posada who have cultivated this species among many others at Colomborquídeas.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls slender, erect, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate to linear, acute, 18-28 cm long including an indistinct petiole, 1.8-2.2 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a slender, multibracted, more or less horizontal peduncle 6-8 cm long, from low on the ramicaul; floral bract, tubular, 7 mm long; pedicel 9 mm long; ovary purple, 4 mm long, round in cross-section; **sepals** rosy white above the middle, orange-brown below the middle, densely white-pubescent within, the dorsal sepal transversely ovate, 7-8 mm long, 10-12 mm wide, connate to the lateral sepals for 5 mm to form a widely spread flower shallowly cupped below the middle of the sepals, the obtuse apex contracted into a slender, erect, red-brown tail 2.5-3.5 cm long, the lateral sepals broadly ovate, oblique, 9-11 mm long, 11-12 mm wide, connate 7 mm into a narrow, shallow mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 2.5 mm long, 1.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina obtuse, recurved; **lip** rose, pandurate, 4.5 mm long, 2.5 mm wide, the epichile suborbicular, 2 mm long, 2.5 mm wide, concave with lightly involute margins, with a central lamina extending out from the hypochile, and with one incomplete raised vein on either side, the hypochile oblong, 2.5 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 3.5 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. of Antioquia: purchased from a local collector without locality, 1978, flowered in cultivation at Colomborquídeas, 14 Jan. 1979, *R. Escobar 1904* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 3665; Munic. of Urrao, collected by E. Segura, 1976, flowered in cultivation by M. & O. Robledo at La Ceja, 5 May 1979, *R. Escobar 1971* (JAUM, SEL); flowered in cultivation at Colomborquídeas, 11 Apr. 1988, *C. Luer 13157* (MO).

This species has been found on only one occasion in the Western Cordillera of Colombia by an unknown collector, but at that time, in great abundance. The numerous plants purchased by the Posadas have thrived and multiplied in their care at Colomborquídeas.

Dracula posadarum is characterized by the densely clustered masses of long, narrow leaves. Among the numerous, short peduncles, some are always in flower. The single flower is usually followed by a second, but no more. The small flowers are pinkish and densly pubescent within, and suffused with brown centrally. The concave epichile of the lip contains only three lamellae.

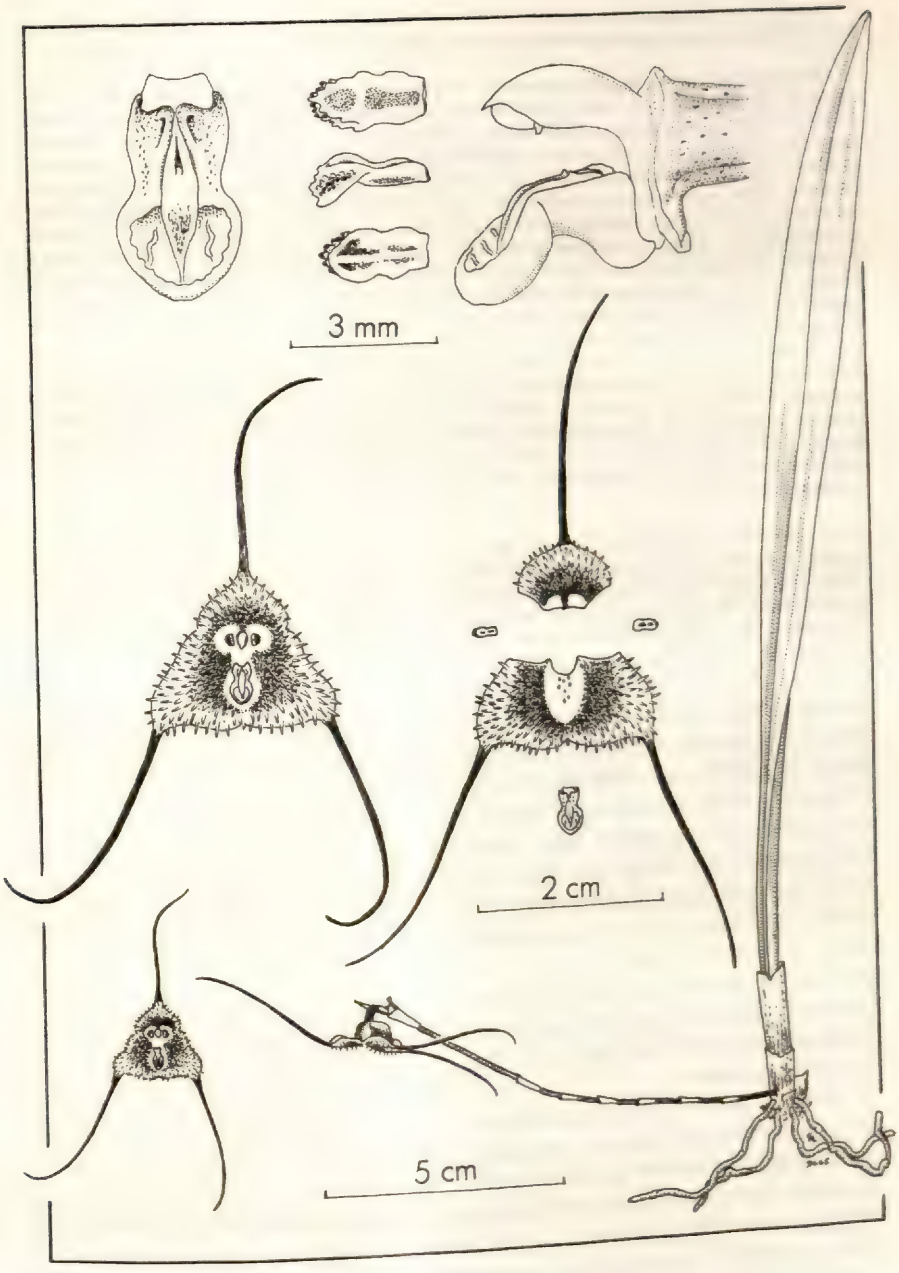


Plate 72. *Dracula posadarum* Luer & Escobar

Dracula presbys Luer & Escobar, sp. nov.

Ety.: From the Greek *presbys*, "an old man," in allusion to the resemblance of the flower to a face covered with white hair.

Species haec *Draculae houtteanae* (Rchb.f.) Luer affinis, sed pedunculis suberectis brevioibus unifloris floribus majoribus candidis intus longipubescentibus differt.

Plant medium in size, densely caespitose; roots slender. Ramicauls stout, erect, 2-6 cm long, enclosed by 2-3 tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-obovate, acute, 13-19 cm long, 1-1.5 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a single flower produced by simultaneous, suberect peduncles 8-9 cm long, from low on the ramicaul; floral bract tubular, 11 mm long; pedicel 19-20 mm long; ovary purple-brown, 4 mm long, lightly subverrucose, round in cross-section; **sepals** white, lightly suffused with light yellow externally, and light tan toward the base within, densely long-pubescent within with the hairs forked and white, the dorsal sepal transversely ovate, 13 mm long, 16 mm wide, connate to the lateral sepals for 8 mm to form a shallowly cupped, gaping flower, the apex rounded, abruptly contracted into a slender, red-brown tail 5-6 cm long, ca. 1 mm wide at the base, the lateral sepals broadly ovate, oblique, 20 mm long, 17 mm wide, connate 20 mm to form a broad, shallow mentum, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** white, heavily marked with purple-brown, cartilaginous, oblong, 4 mm long, 2 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina obtuse, recurved, denticulate; **lip** white, suffused with tan externally, spathulate, 6 mm long, 3.5 mm wide, the epichile ovoid, shallowly concave, 3 mm long, 3.5 mm wide, verrucose externally, with the margins erect, toothed, with a thick, lightly verrucose primary lamella flanked on either side by 1-2 lesser lamellae on either side, the hypochile oblong, 3 mm long, 2.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot nearly as long.

COLOMBIA: Dept. of Antioquia?: without specific locality, flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14092* (Holotype: MO); without specific locality, flowered in cultivation at Colomborquídeas, 20 Nov. 1981, *C. Luer 6733* (SEL).

This taxon is closely related to the variable *Dracula houtteana*, and it may be little more than one of the most aberrant forms. However, the combination of distinguishing features seems sufficient for the taxon to be recognized, if not at the specific level, at least at the subspecific level. Recognizing *D. presbys* here as a species is an example of personal judgement. For over ten years we had been planning to recognize *D. presbys*, but we hesitated until the true identities of *D. houtteana*, *D. psittacina* and *D. velutina* finally became clear.

Dracula presbys is distinguished by the long, narrow leaves and the simultaneous flowering of several to many, single-flowered, more or less erect, relatively short peduncles that usually appear only at long intervals. The shallowly cupped flowers are larger than those of the usual flower of either *D. houtteana* or *D. psittacina*. The flowers are white, and covered within by a dense blanket of long, white, hairlike, forked appendages.

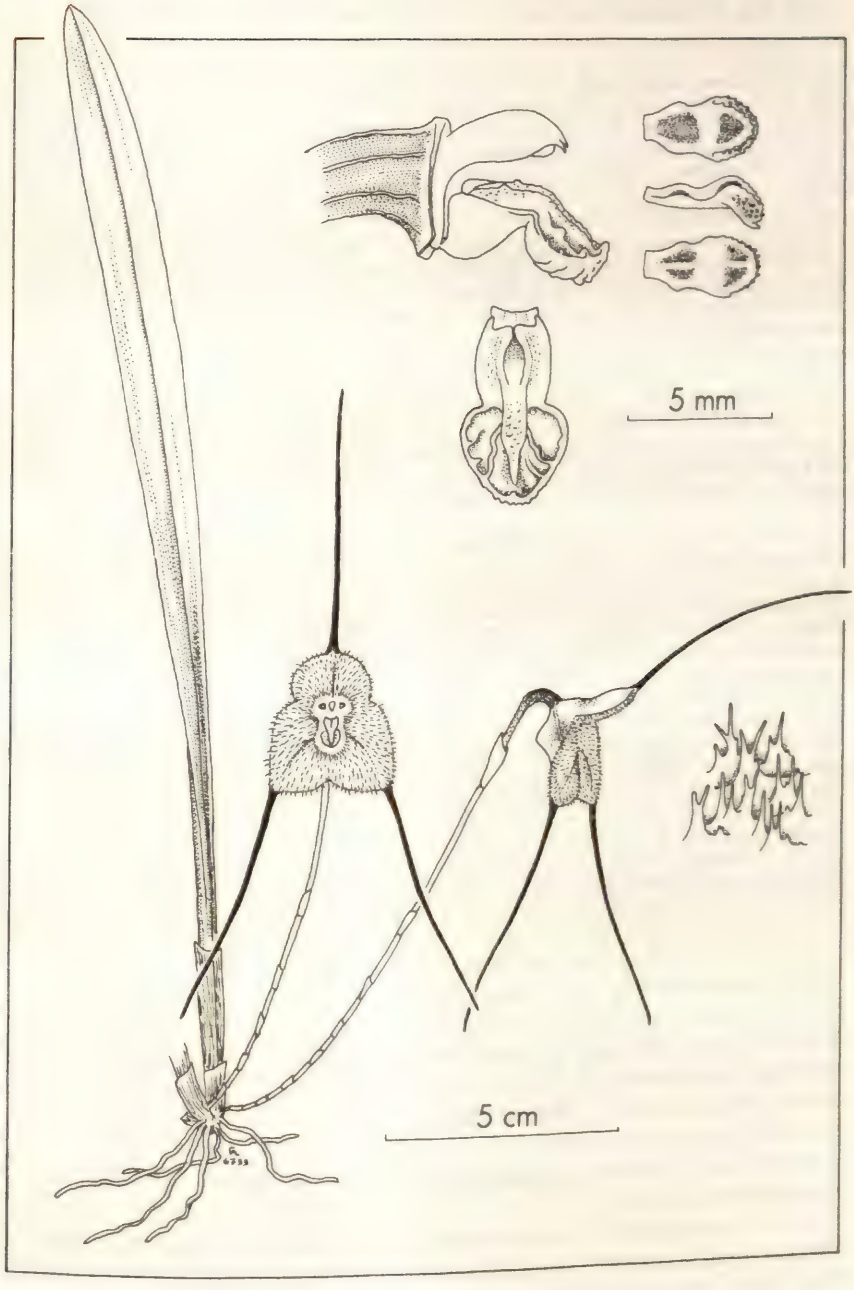


Plate 73. *Dracula presbys* Luer & Escobar

Dracula psittacina (Rchb.f.) Luer & Escobar, *Thesaurus Dracularum* 6: 10, 1993.

Bas.: *Masdevallia psittacina* Rchb.f., Gard. Chron. 1:817, 1876.

Ety.: From the Latin *psittacinus*, "parrot-like," probably in allusion to the appearance of a bud.

Plant medium in size, densely caespitose; roots slender. Ramicauls stout, erect, 3-9 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-obovate, acute, 10-35 cm long, 1-2.5 cm wide, narrowly cuneate below into the conduplicate base. **Inflorescence** a loose, successively 1- to 6-flowered raceme up to 5 cm long, borne by a slender, purple, ascending to more or less horizontal or descending peduncle 10-15 cm long, from low on the ramicaul; floral bract tubular, 8-14 mm long; pedicel 8-20 mm long; ovary purple-brown, 4-5 mm long, lightly subverrucose, round in cross-section; **sepals** dull white, suffused with orange, brown or purple toward the base within, often dotted with purple above the middle, densely pubescent within, more or less suffused with purple externally, the dorsal sepal transversely ovate, 7-12 mm long, 9-15 mm wide, connate to the lateral sepals for 6-8 mm to form a shallowly cupped flower, the apex broadly obtuse, abruptly contracted into a broad, dark purple tail 3-6 cm long, 2 mm wide toward the base, the lateral sepals broadly ovate, oblique, 10-17 mm long, 9-14 mm wide, connate 8-11 mm to form a broad, shallow mentum, the apices obtuse, contracted into broad tails similar to that of the dorsal sepal; **petals** dull white, marked with brown or purple, cartilaginous, oblong, 3-3.5 mm long, 1.5-2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina obtuse, recurved; **lip** white, suffused with rose, spathulate, 6-8 mm long, 3.5-4.5 mm wide, the epichile ovoid, shallowly concave, 3.5-5 mm long, 3.5-4.5 mm wide, with the margins erect, minutely toothed, with a thick, more or less verrucose primary lamella flanked by several, small, radiating, incomplete carinae, the hypochile oblong, 2.5-3 mm long, 2.5-3 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot nearly as long.

COLOMBIA: Without collection data, flowered in cultivation at Burford Lodge, England, 14 Apr. 1876, by *Sir Trevor Lawrence s.n.* (Holotype: W). Dept. of Antioquia: Munic. of El Retiro, above El Retiro, alt. 2200 m, 20 Nov. 1884, *F. C. Lehmann 4308* (G); above El Retiro, alt. 2300 m, collected by S. Restrepo, flowered in cultivation at El Retiro, 19 Nov. 1973, *R. Escobar 990* (JAUM); Quebrada La Agudelo, alt. 2200 m, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14086* (MO); Munic. of Envigado, Alto de Las Palmas, alt. 2400 m, 12 Oct. 1973, *R. Escobar et al. s.n.* (JAUM). Dept. of Cundinamarca: near La Rambla, 2 Feb. 1949, *M. Schneider 487* (S); Santandercito, Laguna de Catarnica, alt. 2300 m, 1981, flowered in cultivation 22 Nov. 1982, *P. Ortiz V. 1002* (SEL), C. Luer illustr. 8497.

Reichenbach described this species from a plant cultivated by Mr. Speyrs in the collection of Sir Trevor Lawrence at Burford Lodge in England. Its origin was uncertain, either from a sale of plants from Messrs. Patin and Lalinde, or from Benedict Roezl, but it is now known to occur in both the Central Cordillera and the Eastern Cordillera of Colombia.

Dracula psittacina is one of several closely related species that include *D. houtteana* and *D. velutina*. From them it is best distinguished by the broad, straight, more or less stiff sepaline tails. It is known locally as "rigid-tails." Unfortunately, the sepaline tails of some populations are intermediate, making identification a matter of personal opinion if the lips are also intermediate.

In common with the other two taxa, the leaves are long and narrow. The flowers are produced successively on a more or less descending peduncle. The sepals,

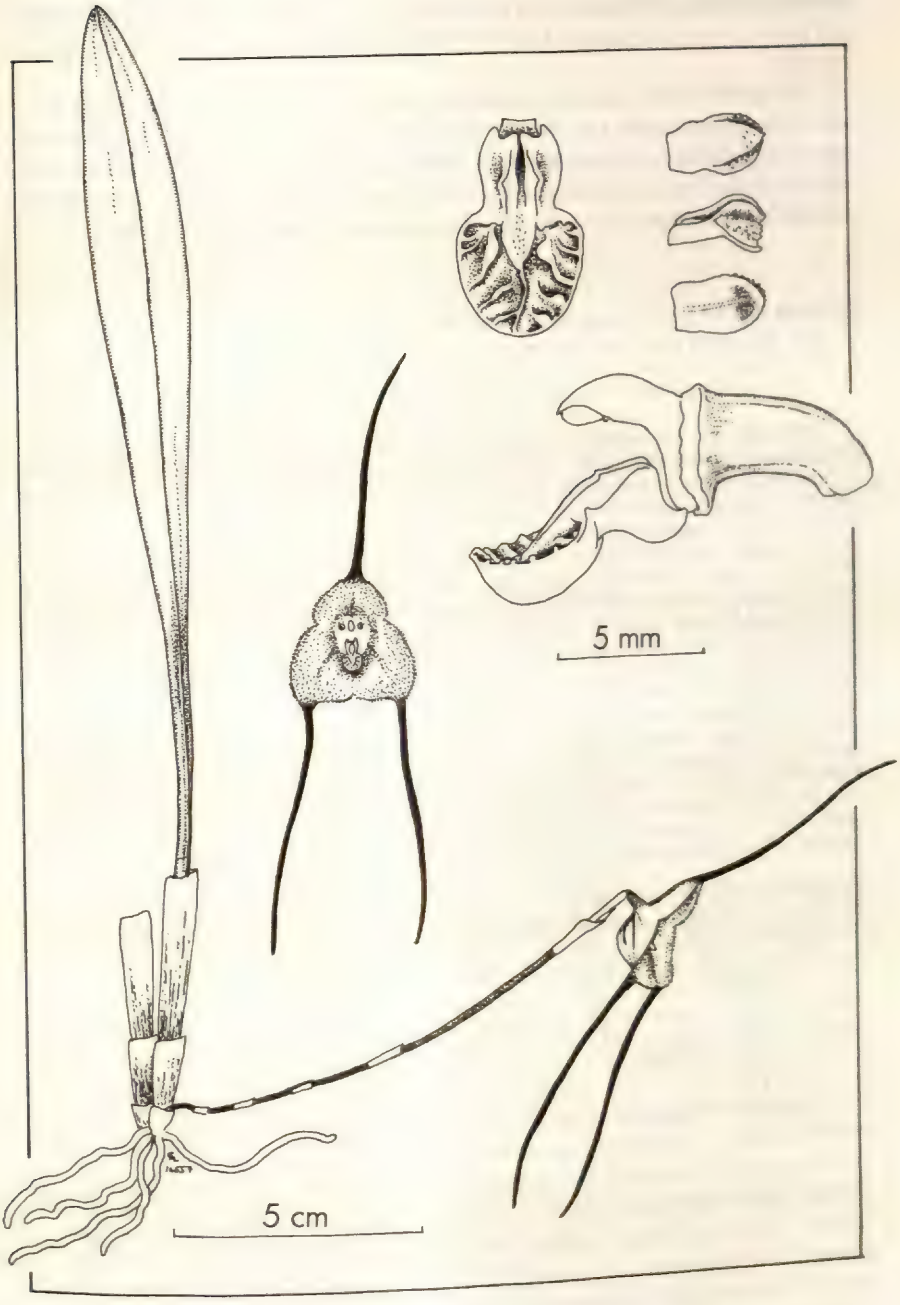


Plate 74. *Dracula psittacina* (Rchb.f.) Luer & Escobar

densely short-pubescent within, are basically white and variously marked with purple or brown as commonly seen in the other two. The red-purple tails are broad, and more or less rigid compared to the slender, flexible tails of *D. houtteana* and *D. velutina*.

The epichile of the pink lip is shallowly concave with thin, non-involute margins. The central carina, more or less verrucose, is similar to that of *D. houtteana*, but it is not flanked on either side by a distinct lesser carina. Instead, only a very few incomplete fragments radiate toward the border. In both these taxa, the epichile extends from the hypochile on the same plane, not deflexed as in *D. velutina*.

Dracula psyche (Luer) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia psyche* Luer, Phytologia 39: 225, 1978.

Ety.: Named for *Psyche*, the Greek mythological winged fairy, the personification of the soul and loved by Eros. Literally from *psyche*, meaning "breath" or "butterfly."

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly elliptical to linear, acute, 9-19 cm long including an indistinct petiole, 0.8-1.5 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme, borne by a slender, purplish, sparsely bracted, ascending to horizontal peduncle 7-15 cm long, from low on the ramicaul; floral bract, tubular, 7-8 mm long; pedicel 8-10 mm long; ovary brown, 3 mm long, subverrucose, round in cross-section; **sepals** light yellow to white, with radiating veins of pink to purple from the bases to the margins edged in purple-brown, the inner surfaces covered by short, white pubescent hairs tipped in purple, the dorsal sepal transversely ovate, 8 mm long, 11 mm wide, connate to the lateral sepals for 5 mm to form a campanulate, sepaline cup, the obtuse apex contracted into a slender, forwardly directed, maroon tail ca. 3.5 cm long, the lateral sepals connate 8 mm into a concave, broadly "U-shaped" synsepal, each lateral sepal oblong, oblique, 13 mm long, 8 mm wide, the acute apices approximate, contracted into closely parallel, straight, slender tails also ca. 3.5 cm long; **petals** light green, cartilaginous, oblong, 2.5 mm long, 1 mm wide, the apex bivalvate, lightly scabrous between the laminae, the inner lamina acute, the outer lamina obtuse; **lip** white, suffused with orangish pink, spathulate, 5 mm long, 3.5 mm wide, the epichile suborbicular, 3 mm long, 3.5 mm wide, deeply concave with involute margins, with 5 elevated lamellae within, the hypochile oblong, 3 mm long, 2.25 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow, stout, semiterete, 3.25 mm long, with an equally long foot.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest above Maldonado, alt. 1500-2000 m, Oct. 1975, collected by A. Andreetta and A. Hirtz, flowered in cultivation by Andreetta in Cuenca, 4 Feb. 1978, *C. Luer 2463* (Holotype: SEL), flowered in cultivation at Colomborquídeas, 17 Apr. 1988, *C. Luer 13215* (MO); same area, 21 Feb. 1978, *C. Luer, J. Luer & A. Hirtz 2686* (SEL).

Apparently endemic in northwesternmost Ecuador, *Dracula psyche* is one of several species discovered in the area by Father Angel Andreetta and Alexander Hirtz. The small, purple-striped, bell-shaped flowers are borne by slender, relatively short peduncles held more or less upright among the slender leaves. The dark purple tail of the dorsal sepal points forward while the parallel, approximate tails of the lateral sepals point downward. The cavity of the small, suborbicular epichile of the lip contains a few, more or less parallel lamellae.

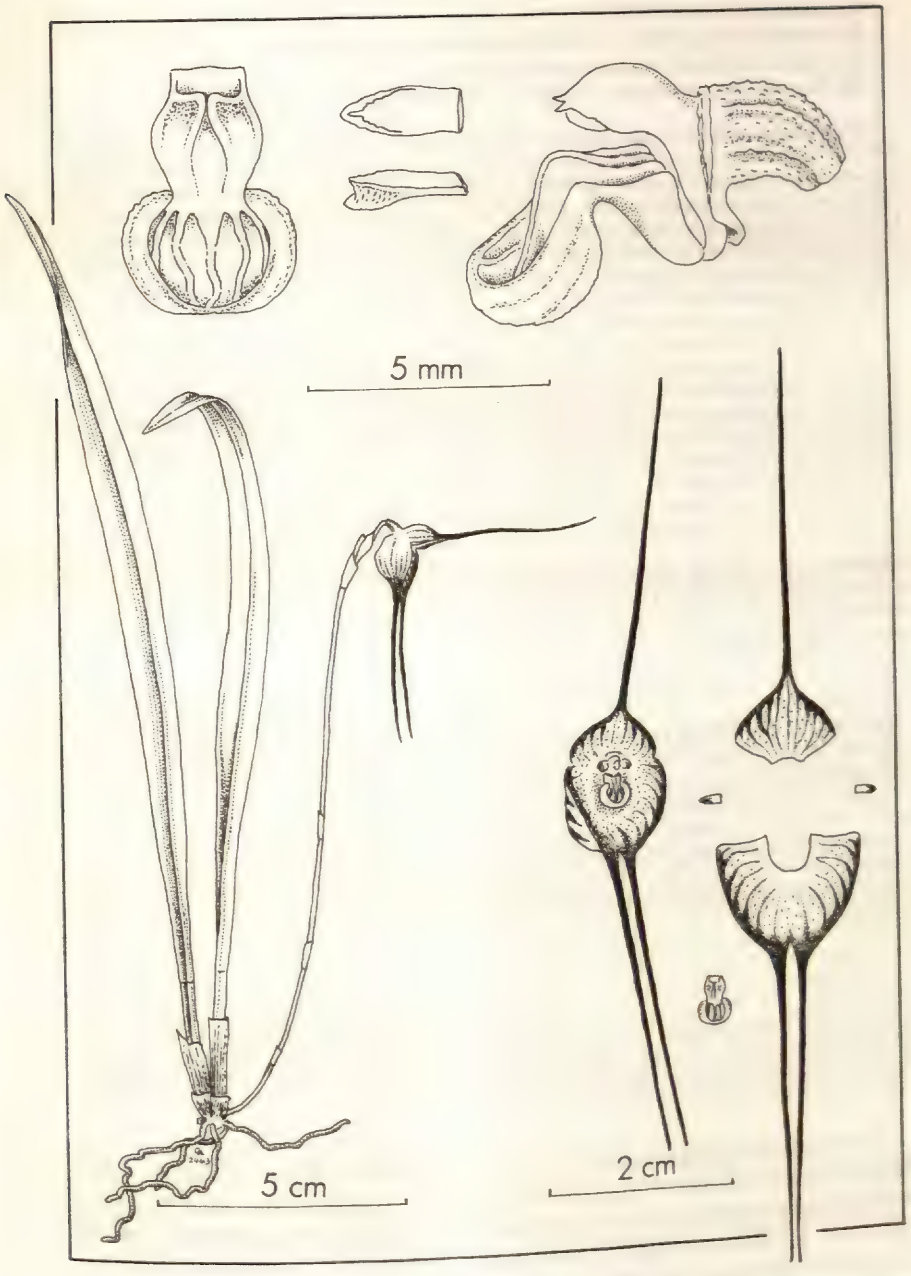


Plate 75. *Dracula psyche* (Luer & Andreetta) Luer

Dracula pusilla (Rolfe) Luer, Selbyana 2: 196, 1978.

Bas.: *Masdevallia pusilla* Rolfe, Bull. Misc. Inform. 335, 1893.
Ety.: From the Latin *pusillus*, "very small," referring to the size of the flowers.

Syn.: *Masdevallia johannis* Schltr.,Repert. Spec. Nov. Regni Veg. 10: 359, 1912.
Ety.: Named for Hans (Johann) von Türckheim who discovered this species.

Syn.: *Dracula vagabunda* Luer & Escobar, Orquideología 15: 35, 1981.
Ety.: From the Latin *vagabundus*, "a vagabond," alluding to the unknown collection data.

Plant small to medium in size, epiphytic, densely caespitose; roots slender. Ramicauls slender, erect, 1.5-3.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 6-15 cm long including an indistinct petiole, 0.8-1.8 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, descending peduncle 5-18 cm long, from low on the ramicaul; floral bract, tubular, 5-6 mm long; pedicel 7 mm long; ovary 3-4 mm long, lightly subverrucose, round in cross-section; **sepals** yellowish, suffused and spotted with red-purple or red-brown, sparsely pubescent with stellate hairs within, the dorsal sepal ovate, 6-10 mm long, 6-9 mm wide, connate to the lateral sepals for 3-4 mm to form a cupped flower, the apex obtuse, contracted into a slender, more or less erect, yellow-green to brownish tail 8-20 mm long, the lateral sepals ovate, oblique, 8-15 mm long, 5.5-7 mm wide, connate 5-12 mm to form a broad, shallow mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 2 mm long, 1 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina obtuse; **lip** yellowish, suffused with rose or brown, subpandurate, 3.5-4 mm long, 1.75 mm wide, the epichile suborbicular, concave, 1.5 mm long, 1.5 mm wide, with the margins incurved with 3 short lamellae, the hypochile elliptical, 2.75 mm long, 1.75 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** light yellow, stout, semiterete, 3 mm long, with a stout foot about as long.

Without locality or collector, flowered in cultivation at the Royal Botanic Gardens, Glasnevin, Dublin, Ireland, 1891, by *F. W. Moore s.n.* (Holotype: K); without locality or collector, flowered in cultivation by M. & O. Robledo at La Ceja, 21 Oct. 1979, *R. Escobar 1755* (JAUM, type of *D. vagabunda*, SEL), C. Luer illustr. 4300.
GUATEMALA: Prov. of Alta Verapaz: near Pansamalá, alt. 3800 ft., 18 Aug. 1887, *J. D. Smith 785* (BR); epiphytic in tall forest near Cobán, alt. 1600 m, Nov. 1907, *H. von Türckheim no. II, 1993* (?B, type of *M. johannis*); Prov. of Baja Verapaz: epiphytic in wet forest near Pampache, alt. 1460 m, 26 Feb. 1981, *C. Luer, J. Luer, M. Dix & M. Dix 5903* (SEL); forest near Cobán, flowered in cultivation by O. Mittelstädt in Cobán, 27 Nov. 1990, *C. Luer 14849* (MO).
MEXICO: Edo. Chiapas: epiphytic in Parque Nacional Lagunas de Montebello, alt. 1650 m, *Soto, Yáñez & Hernandez 4523, 4805* (AMO).
NICARAGUA: Prov. of Jinotega, Macizos de Peñas Blancas, alt. 1300 m, *A. H. Heller 8389* (SEL).
COSTA RICA: Prov. of Heredia: epiphytic in cloud forest above San Jeronimo, alt. 1800 m, 18 Sept. 1979, *C. Luer, J. Luer, K. Walter & L. Glicenstein 4230* (SEL); ?San Ramón, 1869, *A. Endres s.n.* (W).
PANAMA: Prov. of Chiriquí: epiphytic in scrub forest on Cerro Hornito, alt. 1700 m, 15 Dec. 1976, *C. Luer, A. Luer, R. L. Dressler, N. H. Williams & F. L. Stevenson 1601* (SEL).

Rolfe described this species from a cultivated plant without collection data. Endres had sent specimens from Costa Rica to Reichenbach more than 20 years earlier. *Dracula pusilla* is well-known and widely distributed in much of Central America from Chiapas in México into Chiriquí in Pánama. It is often encountered growing in thick mossy and leafy debris on the trunks of tall trees in dim forests, as well as on low, thin branches of short trees in wet, elfin forests.

It is most similar to the Ecuadorian *Dracula mopsus*. The small, brown-spotted, short-tailed flowers are produced on perpendicularly descending peduncles. The flowers often emerge like some insect from surrounding detritus a considerable distance from the plant. The epichile of the tiny lip is smaller than the hypochile.

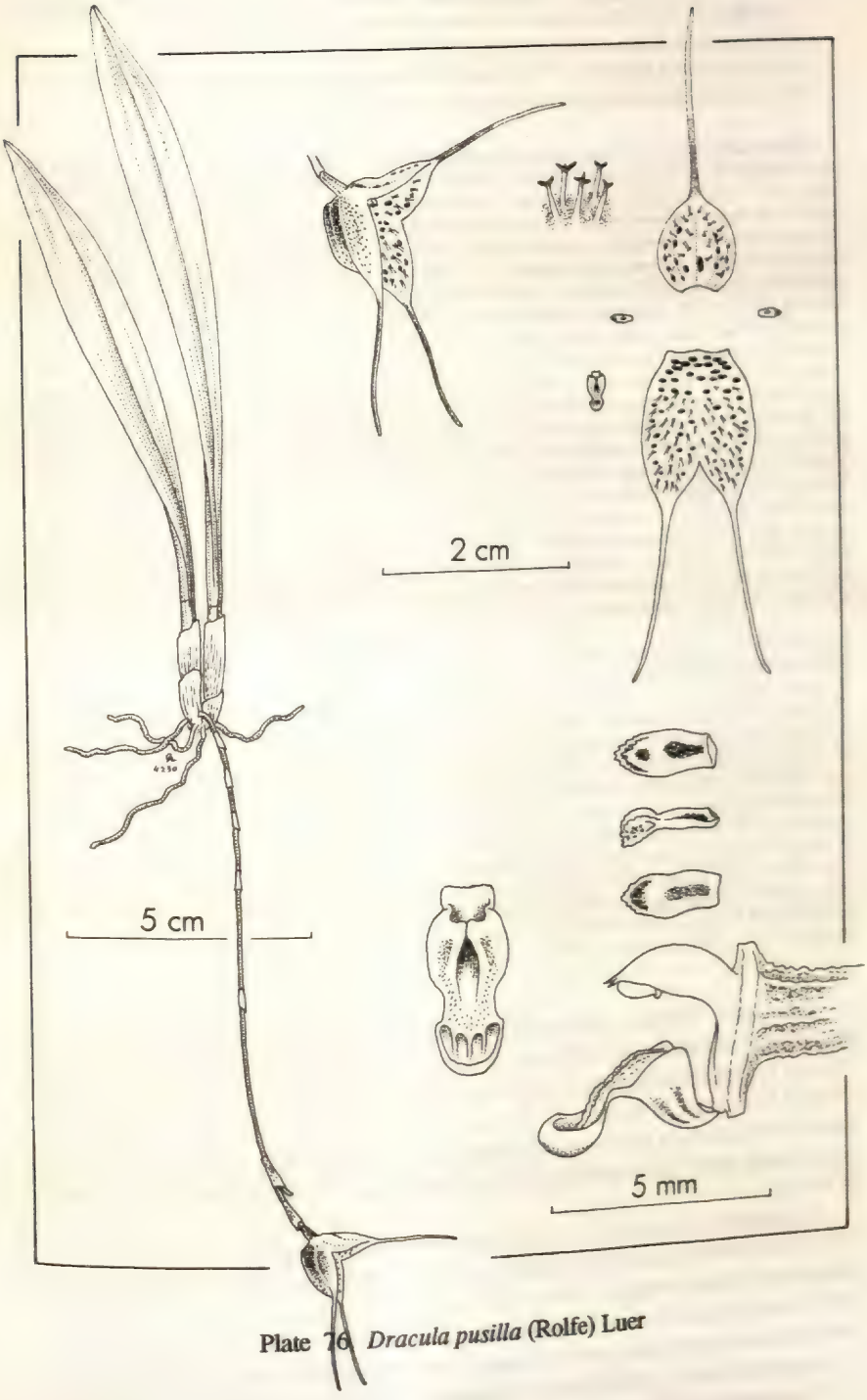


Plate 76 *Dracula pusilla* (Rolfe) Luer

Dracula radiella Luer, Selbyana 2: 370, 1978.

Ety: From the Latin *radiellus*, "a little radiating," referring to the radiating lamellae within the epichile of the lip, and the similarity to the larger-flowered *Dracula radiosa*.

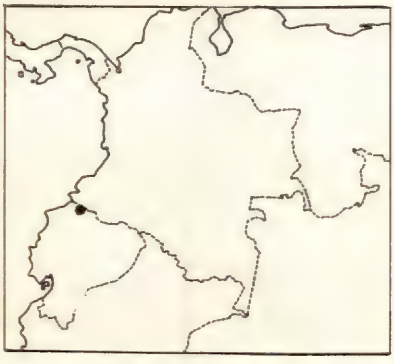
Syn.: *Masdevallia fuliginosa* Luer, Phytologia 39: 203, 1978.

Ety.: From the Latin *fuliginosus*, "full of soot," referring to the appearance of the flowers.

Syn.: *Dracula fuliginosa* (Luer) Luer, Selbyana 2: 194, 1978.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, obovate, subplicate, acute, 10-37 cm long including an indistinct, conduplicate petiole, 2.5-4 cm wide, gradually narrowed below to the base. **Inflorescence** a successively several-flowered raceme up to 15 cm long, borne by a slender, horizontal to descending, several-bracted peduncle 12-18 cm long, from low on the ramicaul; floral bract tubular, 7-10 mm long; pedicel 12-15 mm long; ovary 6 mm long, round in cross-section; **sepals** pale greenish, lightly suffused with blackish brown externally, closely dotted or spotted with blackish brown within, sometimes in distinct rows, glabrous, the dorsal sepal transversely obovate, 15 mm long, 18 mm wide, connate to the lateral sepals for 6-7 mm to form a shallow, sepaline cup, the rounded apex abruptly contracted into a slender, black tail 5-8 cm long, the lateral sepals broadly ovate, oblique, 16 mm long, 15 mm wide, connate 10 mm into a broad, rounded mentum, with a transverse zone of thickening across the back of the flower between the lateral sepals and between the column and lip, the rounded apices contracted into tails 5-9 cm long, similar to that of the dorsal sepal; **petals** cream, marked with dark brown, cartilaginous, oblong, 3 mm long, 2 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina short, subacute, denticulate, the outer lamina rounded; **lip** light rose, marked with darker rose along the laminae, spathulate, 6.5 mm long, 5.5 mm wide, the epichile suborbicular, 4.5 mm long, 5.5 mm wide, deeply concave with erect, smooth, lightly incurved margins, with about 8 laminae radiating from the base of the central keel, the hypochile oblong, 2.5 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally between a pair of acute angles, the concave base hinged to the column-foot; **column** white, marked with purple, stout, semiterete, 3.5 mm long, with a stout foot equally long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest between Maldonado and Tulcán, alt. 2500 m, 28 Aug. 1978, *C. Luer, J. Luer & A. Hirtz 339* (Holotype: SEL); same area, July 1975, collected by W. Teague and D. Welisch, flowered in cultivation by M. & O. Robledo at La Ceja, 17 Oct. 1977, *C. Luer 2104* (SEL); flowered in cultivation at Colomborquídeas, 16 Apr. 1988, *C. Luer 13187* (MO); same area, July 1976, collected by J. Landsmann, flowered in cultivation by J & L Orchids, Easton, CT., 8 Nov. 1977, *C. Luer 2181* (SEL); same area, collected by A. Andreetta and A. Hirtz, flowered in cultivation at Paute, *C. Luer 14080* (MO); east of Maldonado, alt. 2400 m, 16 Mar. 1991, *C. Luer, J. Luer, J. Del Hierro, A. Hirtz & X. Hirtz 15103* (MO).



This species was first collected by Walter Teague and the late David Welisch in the virgin forest along the new road to Maldonado in northwesternmost Ecuador where it is apparently endemic. *Dracula radiella* is a small-flowered species with features that resemble those of *D. radiosa*. In both species a prominent transverse band of thickening is found between the lateral sepals at the level of the column. Such a band, however, is present to some lesser degree in the flowers of all species of *Dracula*.

Vegetatively, *D. radiella* is large with broad, subplicate leaves, indistinct from many of the other species including *D. radiosa*. The flowers of *D. radiella* are less cupped and about only half the size of those of *D. radiosa*. As in *D. radiosa*, the suborbicular epichile of the lip is deeply concave with smooth margins and filled with tall lamellae radiating from the base of the hypochile like spokes of a wheel.

A specimen of *D. radiella* was mistakenly designated as the type of *D. fuliginosa*. A new name (*D. fuligifera*) and type for the latter species has been designated.

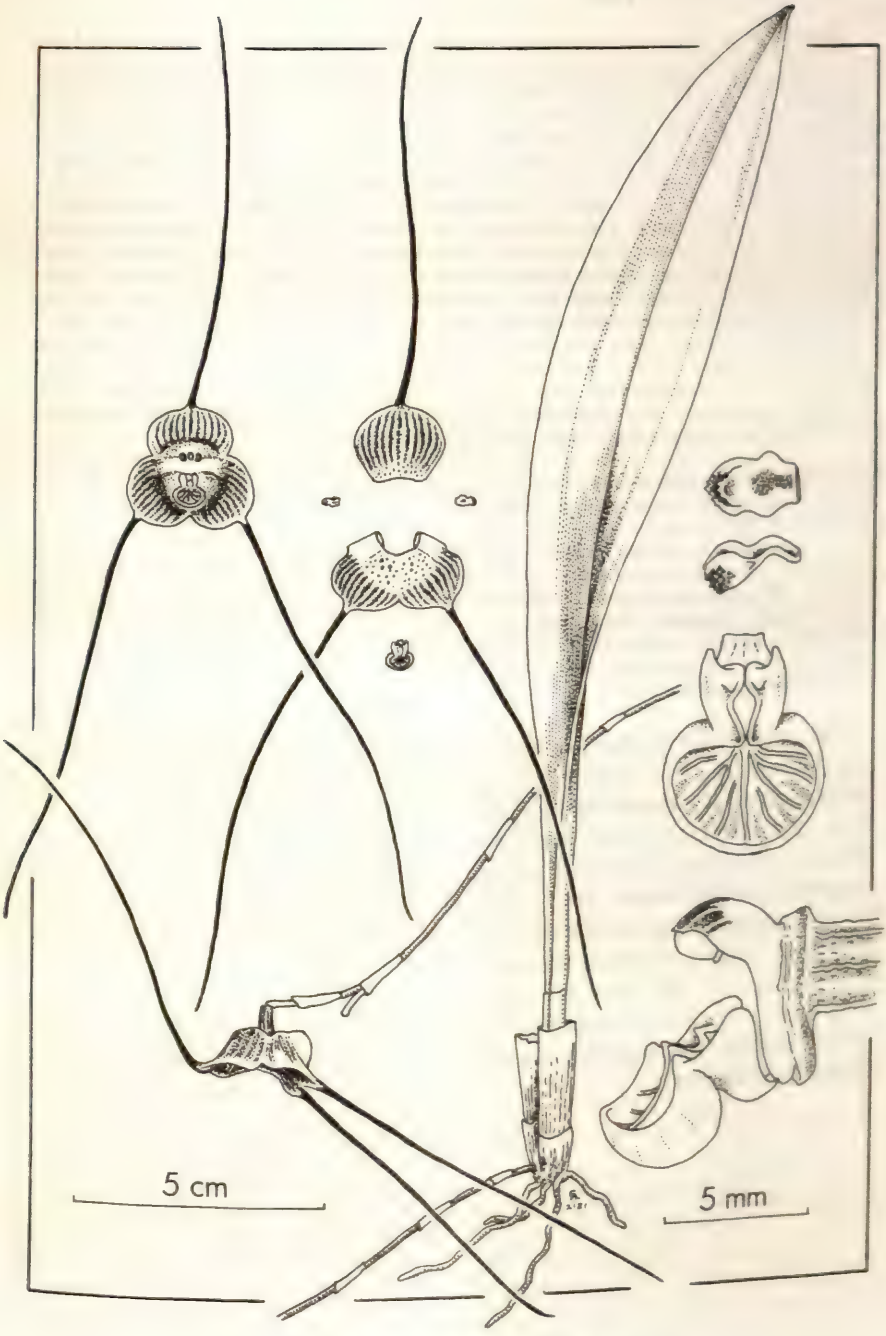


Plate 77. *Dracula radiella* Luer

Dracula X radio-syndactyla Luer, Selbyana 5: 389, 1981.

Ety: Named for the putative parents.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 5-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 15-20 cm long including an indistinct petiole, 3-3.6 cm wide, the base gradually narrowed into the conduplicate, petiolate base. **Inflorescence** a successively few-flowered raceme, borne by a slender, sparsely bracted, horizontal to descending peduncle 7-10 cm long, from low on the ramicaul; floral bract, tubular, 5-6 mm long; pedicel 9-12 mm long; ovary minutely verrucose, 5 mm long, round in cross-section; **sepals** yellow, suffused with brown below the middle, glabrous externally, pubescent within, the dorsal sepal broadly ovate to suborbicular, 13 mm long, 18 mm wide expanded, connate to the lateral sepals for 8 mm to form a cupped flower, the rounded apex abruptly contracted into a slender, erect, dark purple tail ca. 4 cm long, the lateral sepals broadly ovate, oblique, connate 14 mm into a lamina 16 mm long, 25 mm broad, the rounded apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, elliptical-oblong, 3.5 mm long, 2.4 mm wide, the apex bivalvate, papillose between the laminae, the two laminae rounded, minutel denticulate; **lip** white, thickly pandurate, 6 mm long, 5.5 mm wide, the epichile transversely ovoid, acutely deflexed upon the hypochile, 3 mm long, 5.5 mm wide, smooth, deeply concave with erect margins, filled with 7-9 tall, radiating lamellae, the hypochile ovoid, 3 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally between a pair of erect, acute angles, the base concave, hinged to the column-foot; **column** yellow-white, stout, semiterete, 4.5 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Nariño: above Ricaurte, epiphytic in cloud forest near the La Planada Biological Station, alt. 1950 m, collected 2 Nov. 1979 by A. Hirtz, C. & J. Luer et al., flowered in cultivation in Quito by A. Hirtz in Quito, Ecuador, *C. Luer 6314* (Holotype: SEL); same area, flowered in cultivation at the La Planada Orquideario, 25 Jan. 1987, *C. Luer 12495* (MO); same area, collected by A. Hirtz, flowered in cultivation at Colomborquídeas in Colombia, 16 Apr. 1988, *C. Luer 13181* (MO).

This putative hybrid grows intermixed with *D. radiosa* and *D. syndactyla* and morphologically it is intermediate between them. It is more often found than plants with the typical lip of *D. syndactyla* that resembles webbed fingers. The cupped, brown-suffused flowers are smaller than those of *D. radiosa* and larger than those of *D. syndactyla*. The lip of the hybrid more often resembles a small lip of *D. radiosa* with the concave epichile containing radiating lamellae.

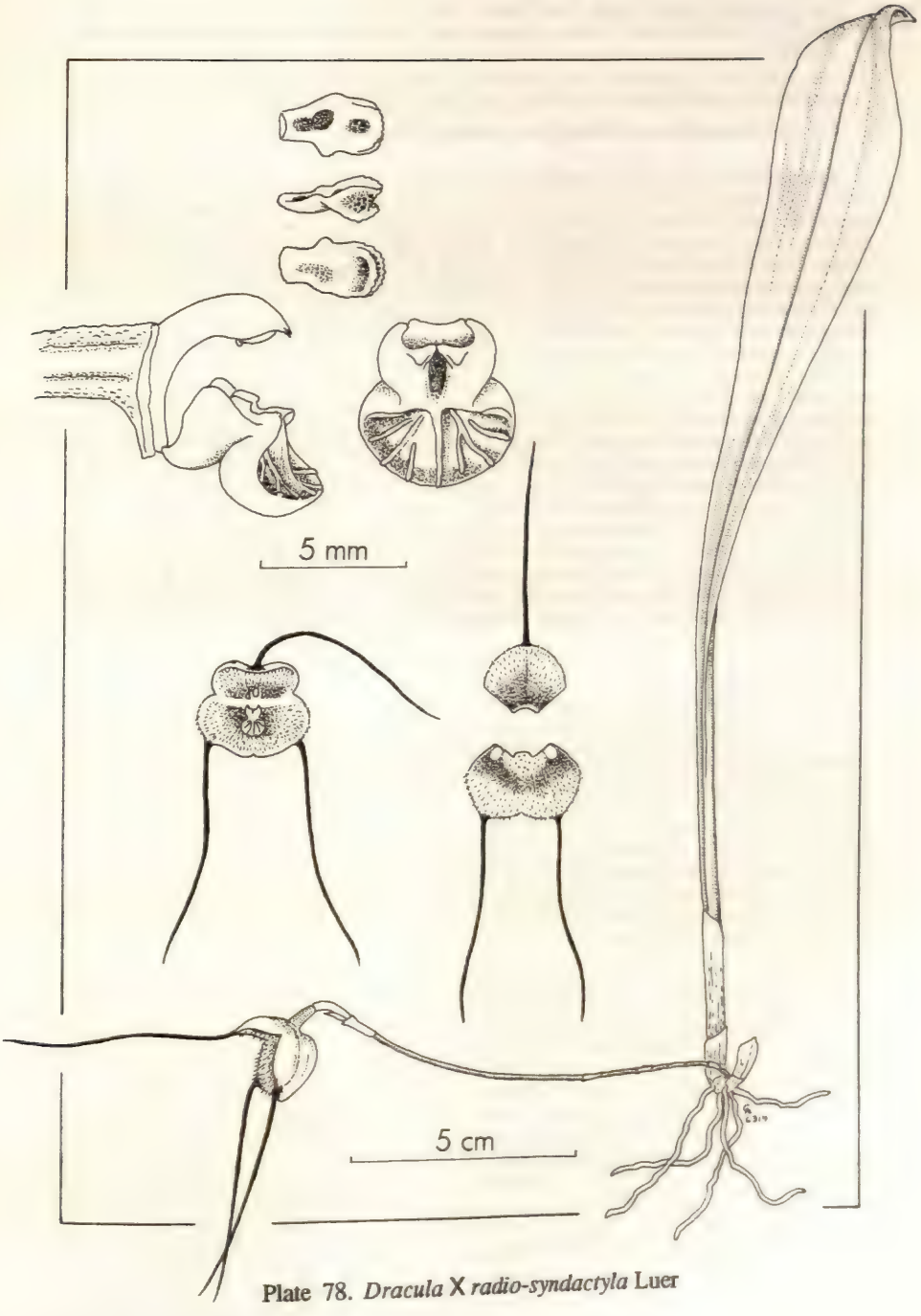


Plate 78. *Dracula* X *radio-syndactyla* Luer

Dracula radiosa (Rchb.f.) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia radiosa* Rchb.f., Gard. Chron. 7: 684, 1877.

Ety: From the Latin *radiosus*, "radiate, or bearing rays," in reference to the radiating lamellae of the epichile.

Syn.: *Masdevallia medellinensis* Kränzl. Repert. Spec. Nov. Regni Veg. 17: 420, 1921.

Ety.: Named for the Colombian department where the specimen was collected.

Syn.: *Dracula medellinensis* (Kränzl.) Luer, Selbyana 2: 196, 1978.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, elliptical, subplicate, acute, 15-23 cm long including an indistinct petiole, 2.3-4.7 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a subdense, successively few-flowered raceme, borne by a stout, subverrucose, sparsely bracted, horizontal to descending peduncle 10-20 cm long, from low on the ramicaul; floral bract, tubular, 10-15 mm long; pedicel 17-20 mm long; ovary green, 6 mm long, smooth, round in cross-section; **sepals** yellow-orange to orange-brown externally, suffused with brown, glabrous, the inner surfaces minutely pubescent with short, thick hairs, dull white or slate, or light yellow, suffused with gray-brown, most intense below the middle, except for a prominent white band across the middle between the lip and the column, the dorsal sepal broadly ovate to suborbicular, 20-22 mm long, 27-29 mm wide, connate to the lateral sepals for 10-13 mm to form a shallowly cupped flower, the rounded apex abruptly contracted into a slender, erect, dark purple tail 7-14 cm long, the lateral sepals broadly ovate, oblique, 23 mm long, 23 mm wide, connate 18-24 mm to form a broad, deep, subsaccate mentum, the rounded apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with brown, cartilaginous, elliptical-oblong, 3.25 mm long, 2.75 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded; **lip** white with brown edges of the lamellae, spathulate, 6-8 mm long, 6.5-8 mm wide, the epichile transversely oblong-elliptical, 4-5 mm long, 6.5-8 mm wide, smooth, deeply concave with erect margins, filled with 9-15 tall, radiating lamellae, the hypochile ovoid, 2.5-3 mm long, 3.5-4 mm wide, with erect, obtuse, marginal angles, cleft centrally between a pair of erect, acute angles, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Antioquia: near Frontino, alt. "8000 ft." 1873, cultivated by J. Veitch, 1876, *G. Wallis 652* (Holotype: W); near Medellín, *W. Boxall s.n.* (W, holotype of *M. medellinensis*); Munic. of Dabeiba: alt. ca, 1800 m, Oct. 1988, collected by H. Angarita, flowered in cultivation at Colomborquídeas, Dec. 1989, *R. Escobar 4047* (JAUM); Peque, alt. 1600 m, collected by H. Angarita, July 1987, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13148* (MO); Munic. of Ituango: collected by B. Tascón, 1968, flowered in cultivation by M. & O. Robledo at La Ceja, 8 July 1978, *R. Escobar 433* (JAUM); Munic. of Yarumal: Quebrada El Oro, alt. 1800 m, collected by G. Misas et al., June 1974, flowered in cultivation at Colomborquídeas, 18 Mar. 1989, *C. Luer 14260* (MO). Dept. of Nariño: epiphytic in cloud forest above Ricaurte, alt. 1800 m, collected Nov. 1979 by A. Hirtz, C. Luer et al., flowered in cultivation in Quito by A. Hirtz, 18 May 1981, *C. Luer 6312* (SEL); collected near the La Planada Biological Station, alt. 1800 m, flowered in cultivation, 25 Jan. 1987, *C. Luer 12494* (MO).
ECUADOR: Prov. of Imbabura: above Río Los Cedros, alt. 2100 m, 23 Jan. 1993, *S. Dalström, T. Höijer & H. Wanntorp 1766* (MO).

This species was first discovered by Gustav Wallis in 1873 near Frontino. Several dried flowers forwarded later to Reichenbach by Boxall were described as *Masdevallia medellinensis* by Kränzlin. *Dracula radiosa* is known today from widely separated areas in the northern part of the Western Cordillera of Colombia

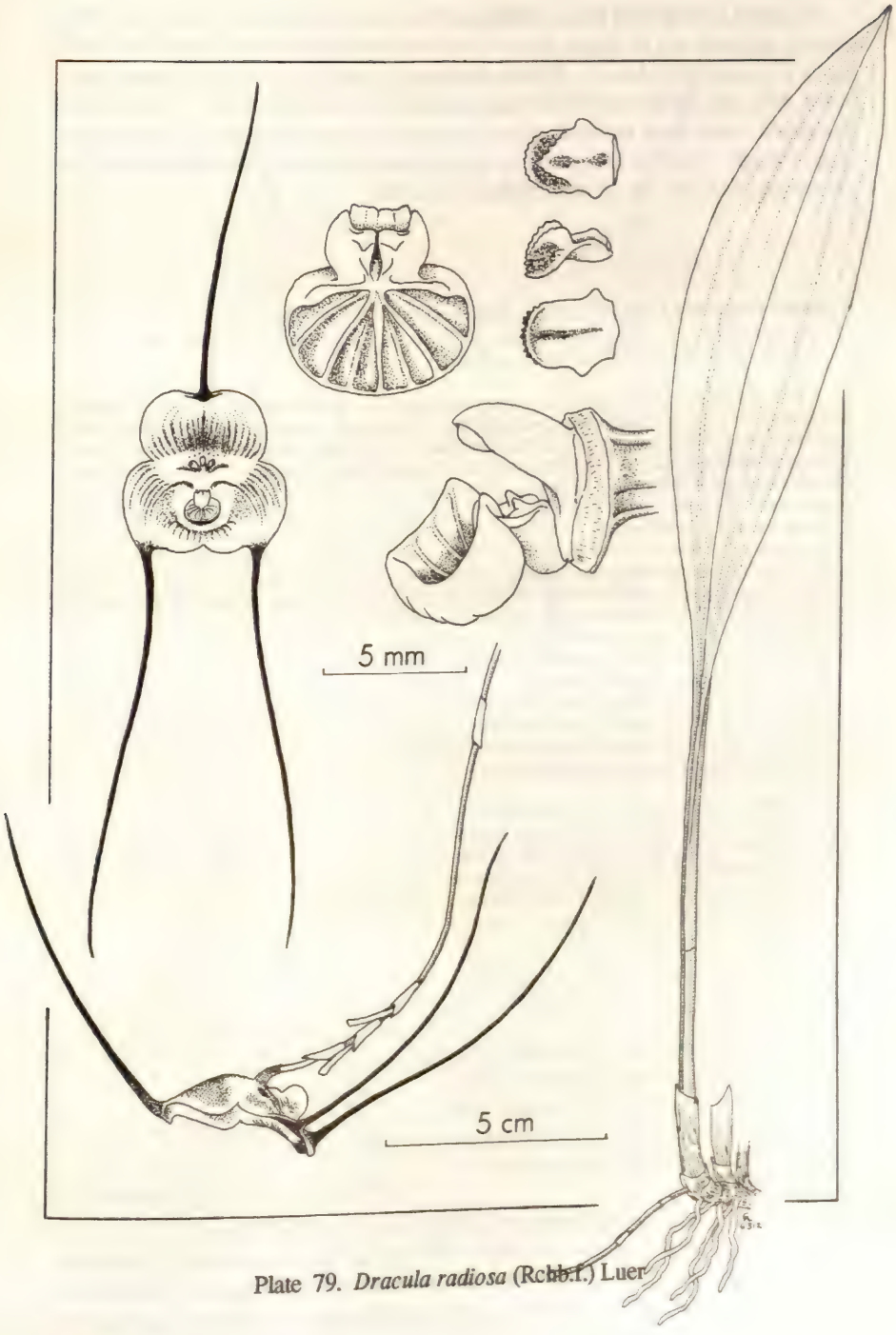


Plate 79. *Dracula radiosa* (Rchb.f.) Luer

into Ecuador.

The plant is large with broad, subplicate leaves and descending peduncles. The flowers are large and of strong texture. The sepaline cup is orange externally, suffused in patches with brown. Within, the color is grayish, or pale yellowish, suffused with gray-brown toward the base, sometimes in parallel lines. A prominent, thickened, white band stretches across the middle from between the bases of the lateral sepals. The epichile of the lip is orbicular and smooth-margined with the concavity filled with tall, smooth, radiating lamellae.

Dracula rezekiana Luer & Hawley, Phytologia 44: 165, 1979.

Ety.: Named in honor of Sra. Maria Friedrich de Rezek, formerly of Quito, Ecuador, who for many years was an ardent enthusiast of the local flora.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 10-15 cm long including an indistinct, conduplicate petiole, 1.8-2.7 cm wide, gradually narrowed below to the base. **Inflorescence** a successively few-flowered raceme, borne by a slender, suberect to horizontal, sparsely bracted peduncle 11-15 cm long, from low on the ramicaul; floral bract tubular, 5-7 mm long; pedicel 10 mm long; ovary purple, 5 mm long, subverrucose, round in cross-section; **sepals** white, glabrous externally, densely pubescent within with a few red-purple dots toward the base, the dorsal sepal transversely obovate, 11 mm long, 15 mm wide, connate to the lateral sepals for 8 mm to form a conical, sepaline cup, the obtuse apex abruptly contracted into an erect, slender, red tail ca. 25 mm long, the lateral sepals broadly ovate, oblique, 15 mm long, 15 mm wide, connate 11 mm into a rectangular synsepal with a broad, shallow mentum, the subacute apices contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong-spathulate, 3.5 mm long, 2 mm wide, the apex bivalvate, densely papillose between the laminae, the inner lamina short, acute, the outer lamina rounded, revolute; **lip** white, obovate, 5.5 mm long, 3.5 mm wide, the epichile without demarcation, ovate, obtuse, 3 mm long, 3.5 mm wide, shallowly concave, with a few elevated, branching veins, the hypochile indistinctly obovate, ca. 2.5 mm long, 2.5 mm wide, with erect, subacute, marginal angles, broadly cleft centrally, the concave base hinged to the column-foot; **column** greenish white, stout, semiterete, 3.5 mm long, with a stout foot nearly as long.

ECUADOR: without locality, purchased from J. Brenner by R. Hawley and R. Levi, flowered in cultivation in Mill Valley, CA., 30 July 1979, *C. Luer 4080* (Holotype: SEL). Prov. of Napo: epiphytic in forest around the Bermejo oil fields north of Lumbaqui, alt. 850 m, 9 Feb. 1986, *C. Luer, J. Luer, A. Hirtz, W. Flores & A. Embree 11758* (MO). Prov. of Zamora-Chinchipe: Cordillera del Condor, Mandimaza, alt. 1700 m, 6 Mar. 1990, *S. Dalström & L. Årnby 1474* (MO).

This species was known to both Sra. de Rezek of Quito and Joe Brenner of Puyo for a number of years before its formal description. It is widely distributed in relatively lowland forest through much of eastern Ecuador.

Dracula rezekiana is characterized by the small habit and the small, white, bell-shaped flower densely pubescent within. The most distinctive feature is the small, obovate lip obscurely, if at all, divided into an epichile and hypochile. The shallowly concave epichile is coursed by several, branching veins, and the hypochile is broadly cleft.

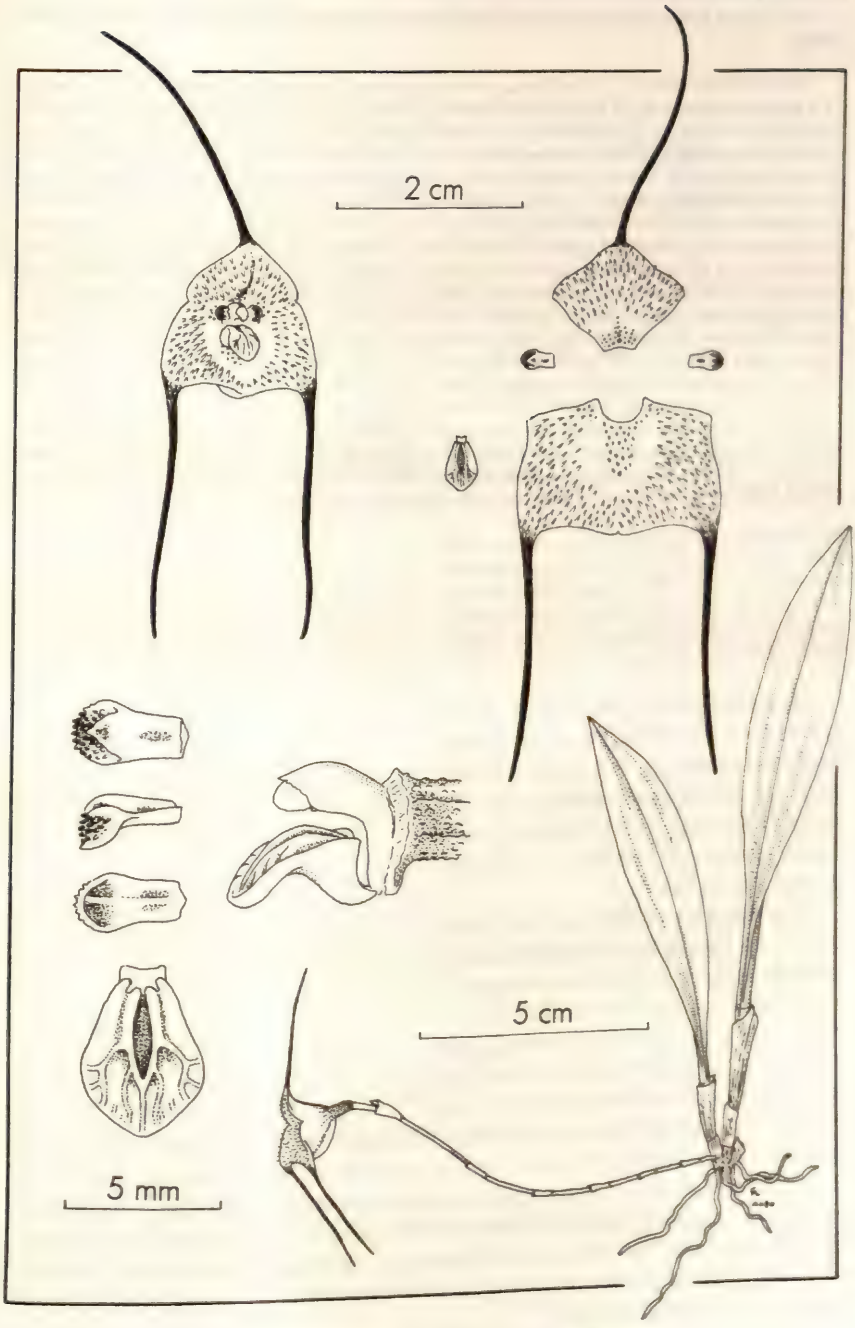


Plate 80. *Dracula rezekiana* Luer & Hawley

Dracula ripleyana Luer, Selbyana 5: 147, 1979.

Ety: Named in honor of the late Harold Ripley of San Francisco, California, who cultivated this species.

Plant small to medium in size, epiphytic, densely caespitose; roots coarse. Ramicauls slender, erect, 2.5-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 14-25 cm long including an indistinct petiole, 1.5-2.7 cm wide, the base narrowly cuneate into the conduplicate base. **Inflorescence** a loose, successively several-flowered raceme up to 8 cm long with 12 flowers, borne by a slender, more or less horizontal peduncle 8-20 cm long, from low on the ramicaul; floral bract, tubular, 7-10 mm long; pedicel 10-15 mm long; ovary 4-5 mm long, subverrucose, round in cross-section; **sepals** white, dotted and with confluent blotches of purple below the middle, pubescent within, the dorsal sepal transversely ovate, 8-10 mm long, 8-13 mm wide, connate to the lateral sepals for 3-5 mm to form a flat flower, the apex obtuse, contracted into a slender, erect, dark purple tail 3.5-7 cm long, the lateral sepals ovate, oblique, 11-15 mm long, 10-13 mm wide, connate 5-10 mm to form a broad, shallow mentum, the apices subacute to obtuse, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple, cartilaginous, oblong, 3 mm long, 1.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina obtuse, recurved; **lip** white, sometimes lightly dotted with rose, spathulate, 7.5 mm long, 3.5-4 mm wide, the epichile ovoid, concave, 4-4.5 mm long, 3.5-4 mm wide, with the margins involute and toothed, the apex obtuse, inflated and incurved, verrucose externally, with 3 primary lamellae within and several, radiating, elevated veins near the margin, the hypochile oblong, 3-3.5 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 3.5 mm long, with a stout foot 3 mm long.

COSTA RICA: without locality or collector, flowered in the collection of H. Ripley in San Francisco, California, 20 Aug. 1979, *C. Luer 4041* (Holotype: SEL); without locality or collector, flowered by B. Würstle in Spielberg, Germany, 20 May 1980, *C. Luer 5256* (SEL).

Without a known origin, this species had been in the collection of Sr. Rafael Restrepo in Medellín, Colombia, for many years. It was photographed in 1973 by Rodrigo Escobar, and it became known locally as the "central stain." The plant was eventually lost.

The species was next seen in California where Harold Ripley had obtained a plant from Beaufort Fisher and had cultivated it in his collection in San Francisco for several years. Unfortunately, the collection data of this species was also unknown except for the country of origin, Costa Rica. Another plant is cultivated by Berthold Würstle of Spielberg, Germany. It had been obtained without collection data from the Munich Botanical Garden.

Dracula ripleyana is related to the common and variable, Central American *D. erythrochaete*, but the small flower is readily identified by the distinctive purple blotching and suffusion below the middle of the white sepals. In addition, the apex of the epichile of the lip is inflated, incurved and obtuse instead of round, and minutely verrucose externally.

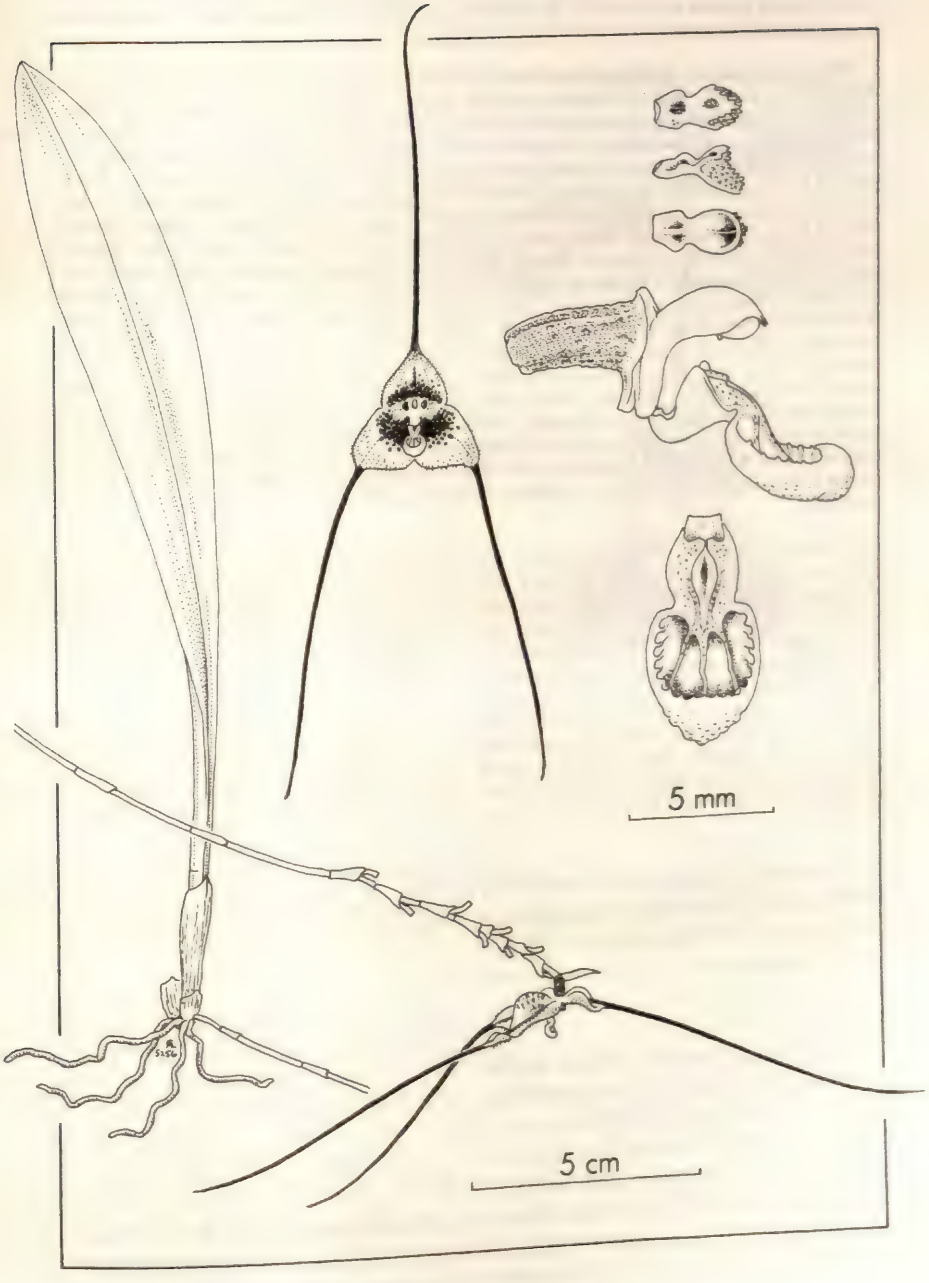


Plate 81. *Dracula ripleyana* Luer

Dracula robledorum (P. Ortiz) Luer & Escobar, Selbyana 2: 197, 1978.

Bas.: *Masdevallia chimaera* Rchb.f. var. *robledorum* P. Ortiz, Orquideología 10: 222, 1975.

Ety.: Named in honor of Dr. and Sra. Oscar Robledo, of Medellín, Colombia, who have successfully maintained this species in cultivation since its discovery.

Plant large, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 18-24 cm long including an indistinct, conduplicate petiole, the blade elliptical, subplicate, acute, 3-5.5 cm wide, gradually narrowed below to the subpetiolate base. **Inflorescence** a successively few-flowered raceme, up to 10 cm long, borne by a stout, purple, erect to occasionally horizontal, sparsely bracted peduncle 15-18 cm long, from low on the ramicaul; floral bract tubular, 10-12 mm long; pedicel 15-20 mm long; ovary dark purple-brown, 7-8 mm long, subverrucose, round in cross-section; **sepals** yellow, orange, or green, lightly to densely spotted with dark purple-brown, the spots often coalescing into large, symetrical blotches, with a broad zone of radiating purple-brown lines at the base, densely short-pubescent within, the dorsal sepal ovate, 32 mm long, 28 mm wide, connate to the lateral sepals for 11 mm to form a widely spread flower, the obtuse apex contracted into an erect, red-brown tail 3.5 cm long, the lateral sepals ovate, oblique, 33 mm long, 28 mm wide, connate 30 mm into a narrow, deep, rounded mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** cream, marked with dark brown, cartilaginous, oblong, 6 mm long, 2.25 mm wide, the apex rounded, bivalvate, densely papillose between the laminae, the inner lamina shorter, denticulate; **lip** white, suffused with peach, spathulate, 19 mm long, 13 mm wide, the epichile suborbicular, lightly rugose externally, 14 mm long, 13 mm wide, concave with involute, denticulate margins, with 3 primary lamellae and numerous, radiating branching lamellae within, the hypochile ovate, 6 mm long, 5.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow white, semiterete, 6 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Antioquia: Urrao, near the headwaters of Río Pabón, June 1975, *P. Ortiz V. 715* (Holotype: COL; Isotype Herb. P. Ortiz); same area, alt. 2000-2200 m, April 1975, *E. Segura s.n.* (JAUM); same area, 20 June 1975, collected by E. Segura, flowered in cultivation by O. J. Arango at La Estrella, 17 Oct. 1975, *R. Escobar 1544* (JAUM); flowered in cultivation by M. & O. Robledo at La Ceja, 10 Oct. 1977, *C. Luer 1977* (SEL); same area, collected by E. Valencia, Sept. 1985, flowered in cultivation at Colomborquídeas, 4 July 1987, *R. Escobar 3965* (JAUM) and 10 Apr. 1988, *C. Luer 13141* (MO).

This beautiful species is reportedly abundant in a remote area of the Western Cordillera of Colombia where it is endemic. It seems most closely related to the relatively frequent, widely distributed and variable *D. wallisii*.

In common with many related species the habit is large with broad, subplicate leaves. From them *D. robledorum* is distinguished by the usually erect, stout peduncle and large flowers with a distinctive color-pattern of large, purple, coalescing blotches on orange, a deep mentum, and comparatively short sepaline tails. The hinged lip is large with the suborbicaular, concave, peach-colored epichile filled with radiating veins.

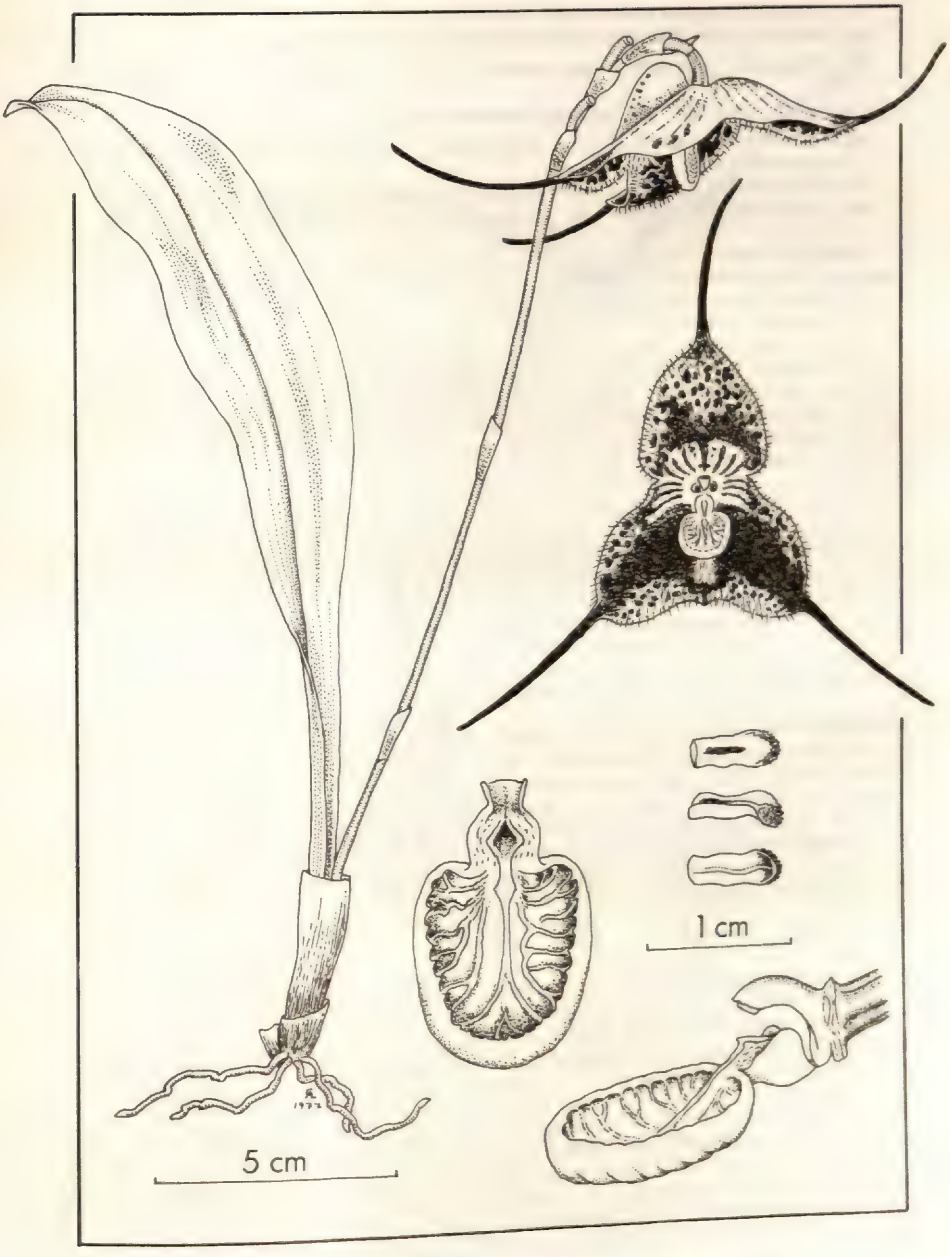


Plate 82. *Dracula robledorum* (P. Ortiz) Luer & Escobar

Dracula roezlii (Rchb. f.) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia roezlii* Rchb. f., Xenia Orchid. 2: 196, t. 186, II, 1874.
Ety.: Named in honor of the discoverer, the renowned Bohemian collector Benedict Roezl.

Syn.: *Masdevallia winniana* Rchb. f., Gard. Chron. 2: 198, 1881.
Ety.: Named for Charles Winn from whom Reichenbach received the specimen.

Syn.: *Masdevallia roezlii* Rchb. f. var. *rubra* hort. ex Williams, Orchid Growers' Man. ed. 6: 398, 1885.
Ety.: From the Latin *ruber*, "red," referring to the color of the flower.

Syn.: *Masdevallia chimaera* Rchb. f. var. *roezlii* (Rchb. f.) Veitch subvar. *rubra* Warner & Wms., Orchid Album 6: t: 243, 1887.
Syn.: *Masdevallia chimaera* Rchb. f. var. *roezlii* (Rchb. f.) Veitch, Man. Orchid. Pl. 5: 31, 1889.
Syn.: *Masdevallia chimaera* Rchb. f. var. *winniana* (Rchb. f.) Veitch, Man. Orchid. Pl. 5: 31, 1889.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, elliptical, subplicate, acute, 15-25 cm long including an indistinct petiole 3-5 cm long, 2.5-5.5 cm wide, the base narrowly cuneate into the conduplicate, petiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 10 cm long of showy flowers, borne by a stout, horizontal to descending peduncle 15-45 cm long, from low on the ramicaul; floral bract, tubular, 10-20 mm long; pedicel 15-35 mm long; ovary 6-8 mm long, verrucose, round in cross-section; **sepals** basic color cream or dull light green, diffusely and intensely dotted, spotted or blotched with deep purple or deep red-brown, shortly and minutely pubescent within, the dorsal sepal ovate, 35-40 mm long, 28 mm wide, connate to the lateral sepals for 8-10 mm to form a flat, widely spread flower, the apex acute, contracted into a slender, erect, dark purple tail 7-8 cm long, the lateral sepals ovate, oblique, 35-40 mm long, 24-28 cm wide, connate 18-25 mm to form a narrow, deep mentum, the acute apices acuminate into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple-brown, cartilaginous, elliptical-oblong, 4.5-5 mm long, 1.5-2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina round, recurved; **lip** creamy white, marked with rose or orange-brown, spathulate, 14 mm long, 9 mm wide, the epichile suborbicular, concave, 9 mm long, 9 mm wide, 2 mm deep, the margins involute and toothed, the rounded apex sometimes lightly incurved, with multiple, radiating, branching, elevated veins, verrucose externally, the hypochile oblong, 4-5 mm long, 3.5-4 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, flexibly attached to the column-foot; **column** greenish white, stout, semiterete, 5-7 mm long, with a stout foot 4-5 mm long.

COLOMBIA: Without locality, *B. Roezl s.n.* (Holotype: W) (Dept. of Antioquia: Frontino, Cerro Plateado, according to Woolward); without locality or collector, flowered in cultivation at The Uplands, Selly Hill, England, by *C. Winn, s.n.* (K, W, type of *M. winniana*); above Nutibara, Alto de Golondrinas, alt. 2050 m, 1966, collected by J. M. Serna, flowered in cultivation by A. Mejía in Medellín, Oct. 1972, *R. Escobar 862A* (JAUM); flowered in cultivation by M. & O. Robledo at La Ceja, 10 Oct. 1977, *C. Luer 1974* (SEL); Munic. of Dabeiba: Alto de Aguila, alt. 1800 m, Jan. 1981, collected by P. Alvarez, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13088* (MO); Munic. of La Ceja: El Capiro, alt. 2300 m, Mar. 1975, collected by G. Correa, flowered in cultivation by M. & O. Robledo at La Ceja, Nov. 1977, *R. Escobar s.n.* (JAUM); flowered in cultivation 10 Oct. 1977, *C. Luer 1972* (SEL); flowered in cultivation 9 Apr. 1988, *C. Luer 13108* (MO). Dept. of Risaralda: Munic. of Mistrató: alt. 1900 m, Mar. 1986, collected by H. Angarita, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13083* (MO).

Reichenbach states that this species had been first collected by Benedict Roezl, and later collected by Wallis and Boxall. No localities are given either on the herbarium sheets or in the publication, but today *D. roezlii* is known from both the Western and the Central Cordillera of Colombia.

The probable flower used for the description was cultivated by Mr. Charles Winn in England. Reichenbach thought that this was the first time that the species

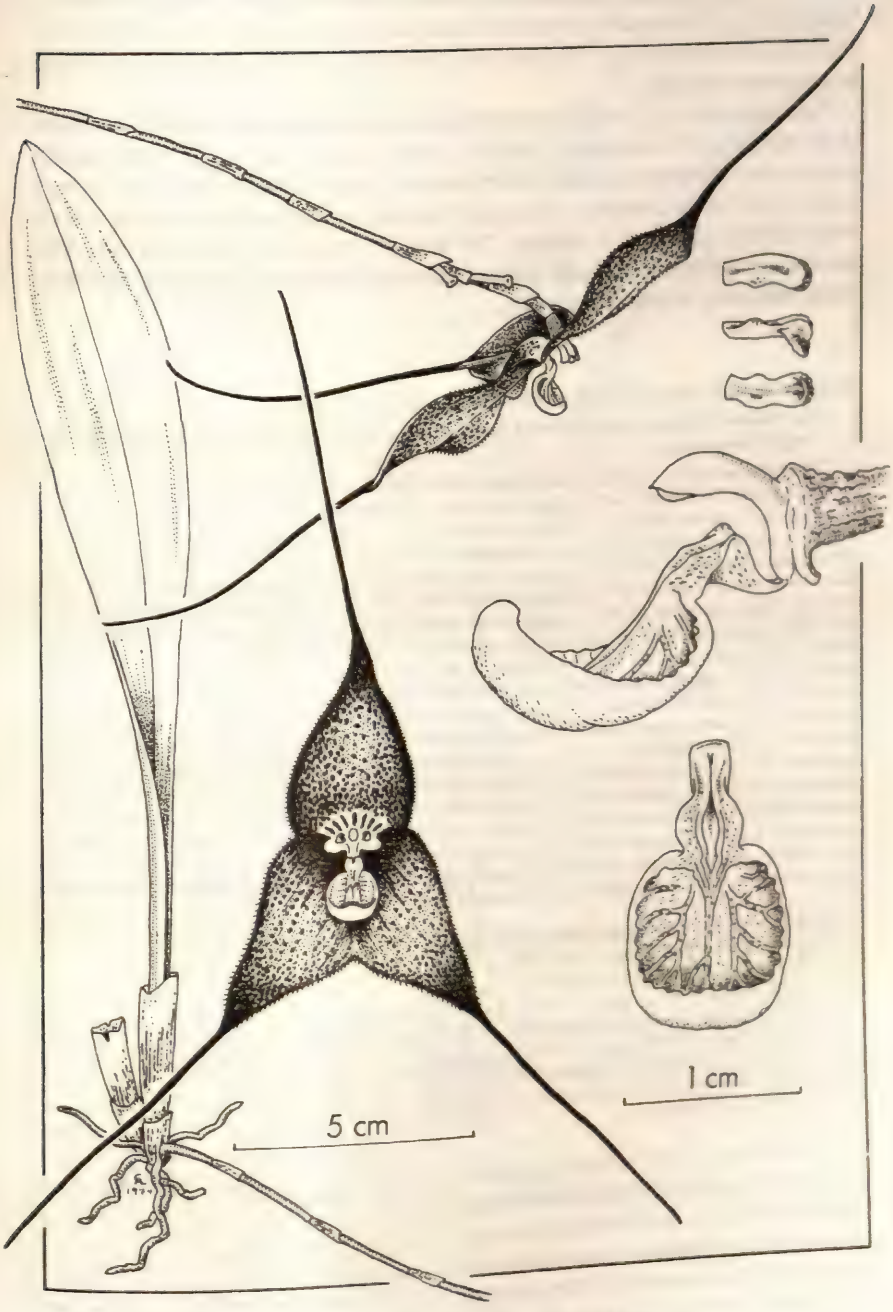


Plate 83. *Dracula roezlii* (Rchb.f.) Luer

had flowered in Europe. Because Mr. Winn's plant had been obtained from F. Sander & Co., Reichenbach surmised that it had been collected by Klaboch, Schmidtchen or Falkenberg. The possibility exists that several, superficially similar taxa had been confused.

The large habit of *D. roezlii* with subplicate leaves is indistinguishable from that of *D. chimaera, D. severa* or *D. wallisii*. The typical black color of the sepals occurs in the Western Cordillera while deep red, or chocolate colors (var. *rubra*) occur in the Central Cordillera. Instead of long and coarse, the pubescence is very short and fine, as it is on *D. severa*. The lip of *D. roezlii* is freely mobile. The suborbicular epichile is shallowly concave, filled with multiple, branching, radiating veins, and lightly verrucose externally.

Dracula sergioi Luer & Escobar, Orquideología 13: 35, 1978.

Ety.: Named in honor of the late Father Sergio Restrepo J., S.J. of Medellín, Colombia, who discovered this species.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls slender, erect, 2-4 cm long, enclosed by 2-3 tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical to linear, acute, 12-22 cm long including an indistinct petiole, 1.1-1.4 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme of downward-facing flowers, borne by a short, purple, multibracted, horizontal peduncle 6-10 cm long, from low on the ramicaul; floral bract tubular, 7 mm long; pedicel 10 mm long; ovary purple-brown, 5 mm long, lightly verrucose, round in cross-section; **sepals** widely spread with recurved margins, white externally, with a prominent, purple midvein, glabrous, internally dull white, suffused with yellow-brown, shortly pubescent, the dorsal sepal transversely ovate, 7 mm long, 8 mm wide, connate to the lateral sepals for 3 mm to form a widely spread, flat flower, the apex obtusely acuminate, contracted into a slender, purple tail 23 mm long, the lateral sepals broadly ovate, oblique, 8 mm long, 9 mm wide, connate 4 mm to form a broad, shallow mentum, the subacute to obtuse apices contracted into slender, purple tails similar to that of the dorsal sepal; **petals** pale yellow, cartilaginous, oblong, 2.5 mm long, 1 mm wide, the apex obtuse, bivalvate, papillose between the laminae; **lip** white, suffused with rose, oblong-subpandurate, shallowly cleft centrally, 4 mm long expanded and fractured, 2 mm wide, the epichile rigidly deflexed on the hypochile, rounded, more or less flat, 2 mm long, 2 mm wide, coursed by a central keel and a lesser one to either side, the hypochile oblong, thick, 2 mm long, 2 mm wide, with erect, obtuse, marginal angles, the concave base hinged to the column-foot; **column** yellowish white, stout, semiterete, 3 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Antioquia: Munic. of Frontino, slopes of Cerro "El Plateado," alt. 1950 m, 11 Apr. 1974, collected by Padre Sergio Restrepo, flowered in cultivation at La Ceja by M. & O. Robledo, *R. Escobar 1402* (Holotype: JAUM), flowered in cultivation 27 Sept. 1977, *C. Luer 1853* (SEL); same area, collected by E. Valencia, August 1986, flowered in cultivation at Colomborquídeas, 11 Apr. 1988, *C. Luer 13160* (MO).

This pretty, small-flowered species is apparently confined to the forests near Frontino where it was first discovered by Father Sergio Restrepo. Vegetatively, it is similar to the other narrow-leaved species with short, horizontal peduncles. The widely spread, flat flowers always face downward, so that the prominent purple stripe along the midvein of the sepals is clearly visible. Within, the shortly pubescent surface is dull white suffused with light yellow-brown.

The minute lip is oblong with only a faint narrowing above the middle where the

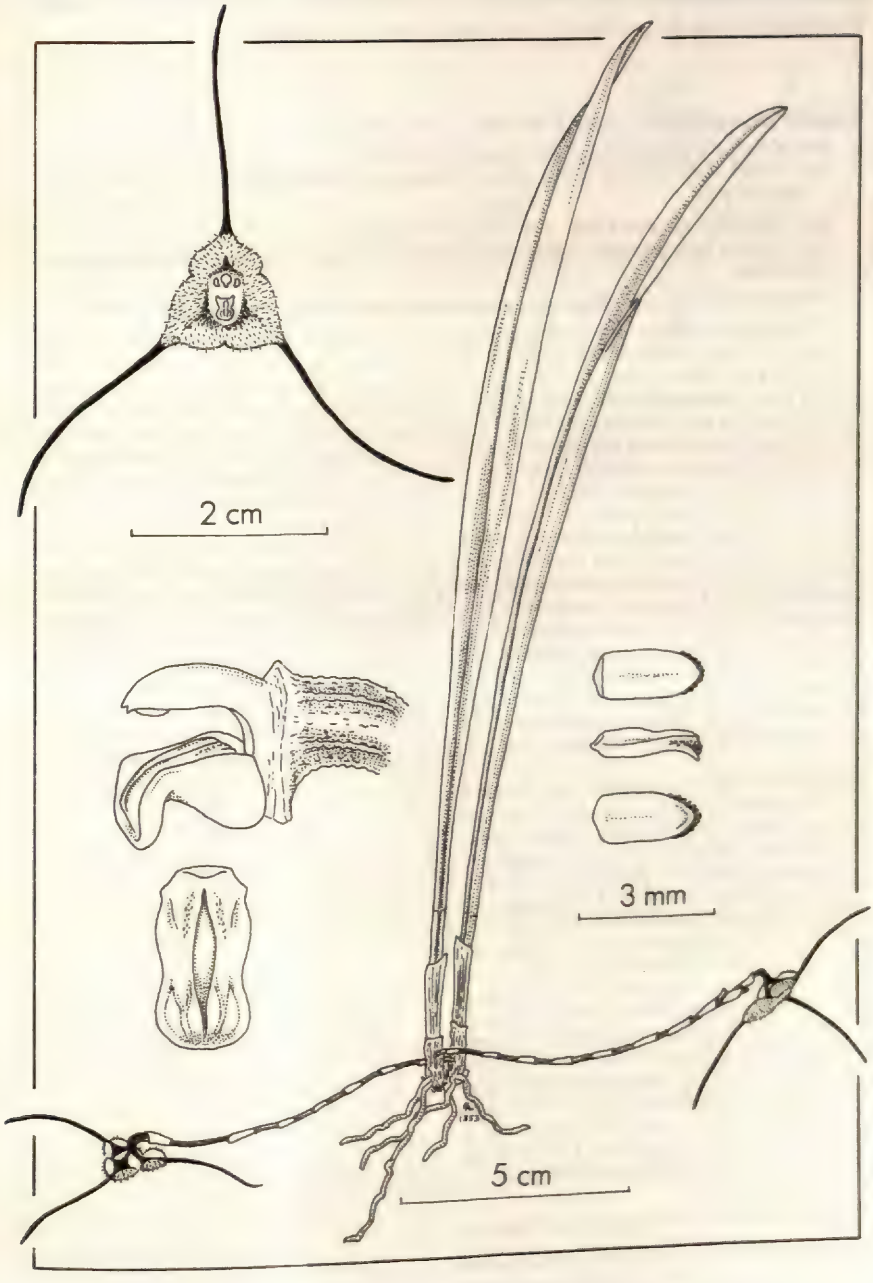


Plate 84. *Dracula sergioi* Luer & Escobar

epichile is acutely deflexed upon the larger hypochile. Only three low lamellae are present in the shallowly concave epichile. The hypochile is thick and broadly cleft. The epichile of the tiny, oblong lip is no larger than the hypochile.

Dracula severa (Rchb.f.) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia severa* Rchb.f., Gard. Chron. 1: 170, 1875.

Ety.: From the Latin *severus*, "harsh, sharp," referring to the pubescence that arises from points instead of warts.

Syn.: *Masdevallia spectrum* Rchb.f., Gard. Chron. 1: 429, 1875.

Ety.: From the Latin *spectrum*, "a ghost or a phantom," referring to the frightening appearance of the flower.

Syn.: *Masdevallia chimaera* Rchb.f. var. *severa* (Rchb.f.) Veitch, Man. Orchid. Pl. 5: 31, 1889.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, elliptical, acute, 15-23 cm long including an indistinct petiole 3-4.5 cm long, 3-4.5 cm wide, the base cuneate into the conduplicate, petiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 10 cm long of showy flowers, borne by a stout, horizontal, ascending to descending peduncle 20-35 cm long, from low on the ramicaul; floral bract, tubular, 15-18 mm long; pedicel 30-40 mm long; ovary 7 mm long, round in cross-section; **sepals** basic color cream, diffusely or irregularly dotted, spotted or blotched, often in parallel lines, with red-brown, shortly and minutely pubescent within, the dorsal sepal ovate, 40 mm long, 25 mm wide, connate to the lateral sepals for 7-8 mm to form a flat, widely spread flower, the apex acute, contracted into a slender, erect, dark red-brown tail 7-8 cm long, the lateral sepals ovate, oblique, 50 mm long, 23 cm wide, connate 25 mm to form a narrow, deep mentum, the acute apices acuminate into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple-brown, cartilaginous, elliptical-obovate, 3.5 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina round, recurved; **lip** yellow, suffused with orange, spathulate, 17 mm long, 10 mm wide, the epichile oblong-scaphoid, concave, 14 mm long, 10 mm wide, with the apex inflated, incurved, 7-9 mm deep, the margins involute and toothed, with 3 primary lamellae and multiple, radiating, branching, elevated veins to either side within, the hypochile oblong, 3 mm long, 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, inflexibly attached to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Antioquia: *Patin 10* (Holotype: W); Medellín, *Shuttleworth s.n.* (W: type of *M. spectrum*); Munic. of Dabeiba: Serrania de Urama, Alto del Aguila, alt. 1700-2000 m, 1974, collected by L. Argudelo, flowered in cultivation by M. & O. Robledo at La Ceja, 12 Dec. 1974, *R. Escobar 1409* (JAUM), flowered in cultivation 10 Oct. 1977, *C. Luer 1971* (SEL); El Cilguero, alt. ca. 1600 m, collected by L. Argudelo, flowered in cultivation by M. & O. Robledo at La Ceja, Feb. 1975, *R. Escobar 1462* (JAUM); alt. ca. 1900 m, obtained from E. Acevedo, 1977, flowered in cultivation at Colomborquídeas, 14 Jan. 1979, *R. Escobar s.n.* (JAUM); alt. 1900 m, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13142* (MO); Chimiadó, July 1987, collected by H. Angarita, flowered in cultivation by M. & O. Robledo at La Ceja, 9 Apr. 1988, *C. Luer 13086* (MO).

Reichenbach states that he had received dried flowers of this species from three collectors: Patin, Roezl, and Shuttleworth, but Patin's name has been written on the drawing that is presumed to be the type. Patin is known to have acquired most of his specimens from Juan Lalinde

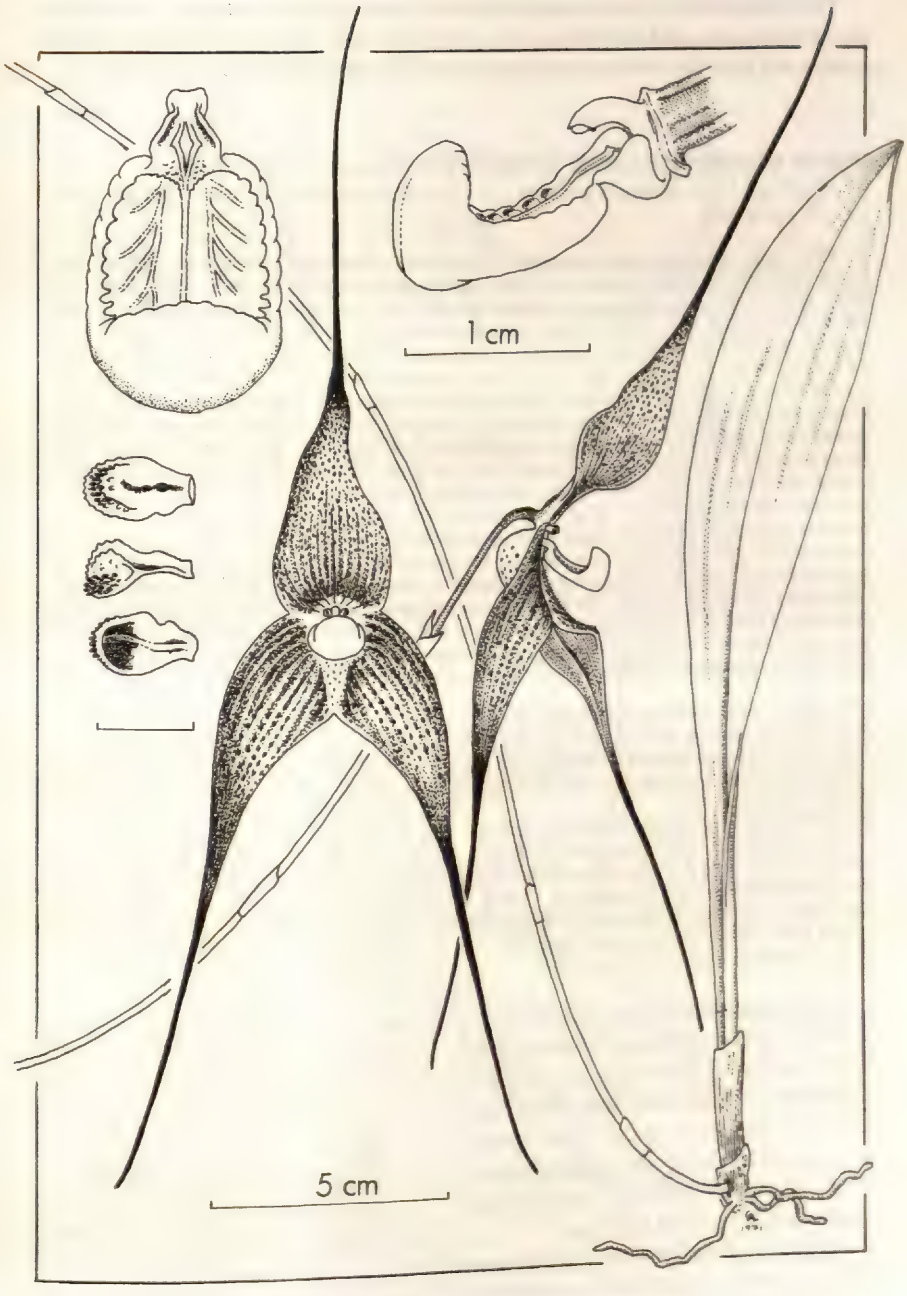


Plate 85. *Dracula severa* (Rchb.f.) Luer

of Medellín in Antioquia; *D. severa* occurs in the Western Cordillera of Antioquia.

The peduncle of *D. severa* more frequently ascends than descends. The sepals are narrowly acute, and the pubescence is short and fine. As in *D. chimaera*, the lip stands erect from the center of the flower, inflexibly attached to the column-foot.

Dracula sibundoyënsis Luer & Escobar, Orquideología 13: 137, 1979.

Ety.: Named for the community of Sibundoy in the department of Putumayo, near where this species was discovered.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 4-6.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate to linear, acute, 15-30 cm long including an indistinct petiole, 1.3-2.5 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a stout, purplish, sparsely bracted, horizontal to descending peduncle 8-15 cm long, from low on the ramicaul; floral bract, tubular, 12 mm long; pedicel 25-37 mm long; ovary red-brown, 7-8 mm long, smooth, round in cross-section; **sepals** whitish, suffused with purple-brown externally, white to greenish white within, diffusely dotted with purple-brown, verrucose below the middle, spiculate to shortly pubescent above the middle, the dorsal sepal broadly ovate to suborbicular, 23-27 mm long, 25 mm wide, connate to the lateral sepals for 9 mm to form a widely spread, flat flower, the rounded apex abruptly contracted into a slender, erect, maroon tail 7-8 cm long, the lateral sepals broadly ovate, oblique, 30-35 mm long, 23-25 mm wide, connate 25 mm into a broad, deep mentum, the obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3.5 mm long, 2 mm wide, the apex obtuse, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** buff to pale orange, spathulate, 14 mm long, 9 mm wide, the epichile oblong, 10 mm long, 9 mm wide, concave with the sides erect and denticulate, with at least 3 irregular, radiating, lamellae and a few incomplete lamellae projecting as teeth along the margins, the hypochile oblong, 4 mm long, 4 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 4-5 mm long, with a thick foot 3 mm long.

COLOMBIA: Dept. del Putumayo: epiphytic in cloud forest near Sibundoy, alt. ca. 2300 m, collected by O. Ospina, flowered in cultivation at Sibundoy, 30 July 1978, *R. Escobar 2002* (Holotype: JAUM; Isotype: SEL); C. Luer illustr. 3091.
ECUADOR: Prov. of Sucumbios: between El Carmelo and La Bonita, alt. 2200 m, Aug. 1990, *A. Hirtz, X. Hirtz, J. Del Hierro & F. Sarmiento 4966* (MO); between Santa Barbara and La Bonito, alt. 1990 m, 8 July 1990, *C. Dodson, E. Hagsater, D. Rubio & N. Rivera 18457* (MO); same area, alt. 2200 m, 16 Mar. 1992, *S. Dalström et al. 1672* (MO).

This species was first discovered by Brother Octavio Ospina in a forest near his community of Sibundoy in southern Colombia where it grows with the smaller-flowered *Dracula octavioi*. Both species are characterized by very narrow leaves. *Dracula sibundoyënsis* has recently been discovered in adjacent Ecuador.

Dracula sibundoyënsis is one of many similar species related to *D. wallisii* and *D. woolwardiae*. From them *D. sibundoyënsis* is distinguished by the narrow, linear leaves, shortly pubescent sepals, and an oblong epichile of the lip with denticulate instead of involute margins. The few lamellae within the epichile are tall and irregular with several fragmented lamellae, quite different from the multiple, radiating veins of *D. wallisii* and *D. woolwardiae*.

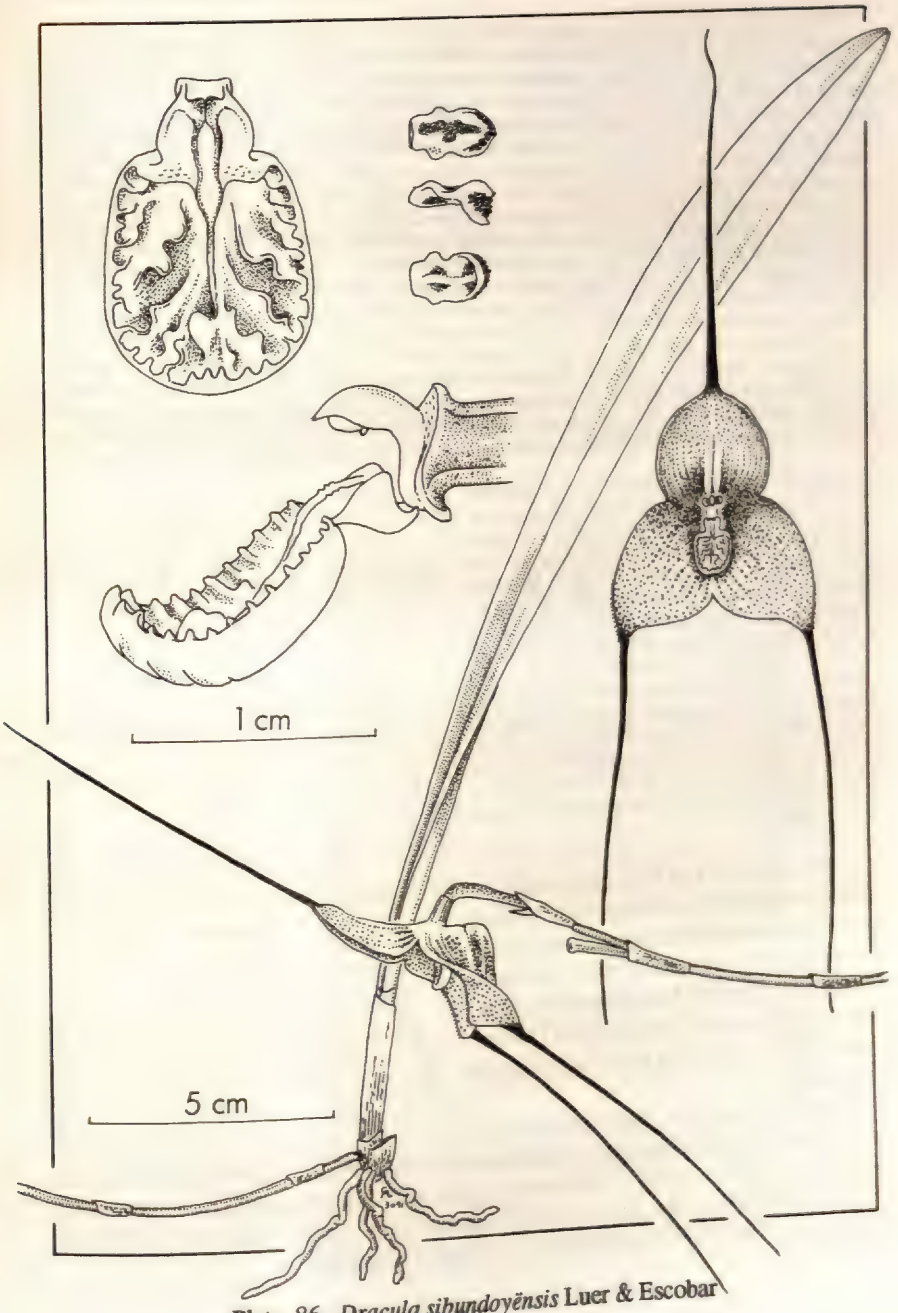


Plate 86. *Dracula sibundoyënsis* Luer & Escobar

Dracula simia (Luer) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia simia* Luer, Phytologia 39: 229, 1978.

Ety.: From the Latin *simia*, "an ape or monkey," in fancied allusion to the appearance of the flower.

Plant medium in size to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical to linear, acute, 10-21 cm long including an indistinct petiole, 1.3-1.7 cm wide, the base gradually narrowed into the conduplicate, subpetiolate base. **Inflorescence** a congested, successively few-flowered raceme of showy flowers, borne by a stout, subverrucose, sparsely bracted, horizontal to descending peduncle 10-15 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 13 mm long; ovary brown, 8 mm long, subverrucose, round in cross-section; **sepals** white below the middle, speckled with red-purple, heavily suffused with red-purple on the outer halves, the inner surfaces covered by short, thick hairs or spicules, the dorsal sepal broadly ovate, 20 mm long, 26 mm wide, connate to the lateral sepals for 8-9 mm to form a flat, widely spread flower, the obtuse apex contracted into a slender, erect, maroon tail ca. 7 cm long, the lateral sepals broadly ovate, oblique, 20 mm long, 24 mm wide, connate 13 mm to form a broad, shallow mentum, the obtuse apices contracted into slender, maroon tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, elliptical-oblong, 5 mm long, 2.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded; **lip** white, spathulate, 12 mm long, 9 mm wide, the epichile broadly ovate, 7 mm long, 9 mm wide, minimally concave at the rounded, apical margin, with a central, longitudinal keel with several lesser laminae radiating to the flat, lightly sinuate margins, the hypochile oblong, 5 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 5 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Zamora-Chinchipe: epiphytic in cloud forest between Loja and Zamora, alt. ca. 2000 m, collected by B. Malo, flowered in cultivation by M. & O. Robledo at La Ceja, Colombia, 25 Sept. 1977, *C. Luer 1836* (Holotype: SEL; Isotype: JAUM); same area, flowered in cultivation by A. Andreetta in Cuenca, 4 Feb. 1978, *C. Luer 2463* (SEL); same area, 21 Feb. 1978, *C. Luer, J. Luer & A. Hirtz 2686* (SEL); Quebrada Honda between Yangana and Valladolid, alt. 1800 m, Nov. 1985, collected by D. D'Alessandro, flowered in cultivation at Colomborquídeas, 25 Apr. 1988, *C. Luer 13300* (MO); Cordillera del Condor, epiphytic in forest east of Los Encuentros, alt. 1550 m, 18 May 1988, *C. Luer, A. Hirtz, W. Flores, A. Andreetta & W. Teague 13453* (MO).

This species was first discovered by Benigno Malo in a well-explored, forested valley in southeastern Ecuador. Although not having been recorded before that time, it has been found to be relatively frequent, especially in the Cordillera del Condor where only a few other species of *Dracula* are found.

Although the long, narrow leaves are not distinct, the flowers of *D. simia* are easily recognized. The well-demarcated, white zone in the center of the large flower, otherwise red-purple in color, surrounds the toothed lip, the noselike column, and eyelike petals and the round, toothed lip that give the impression of the face of a monkey.

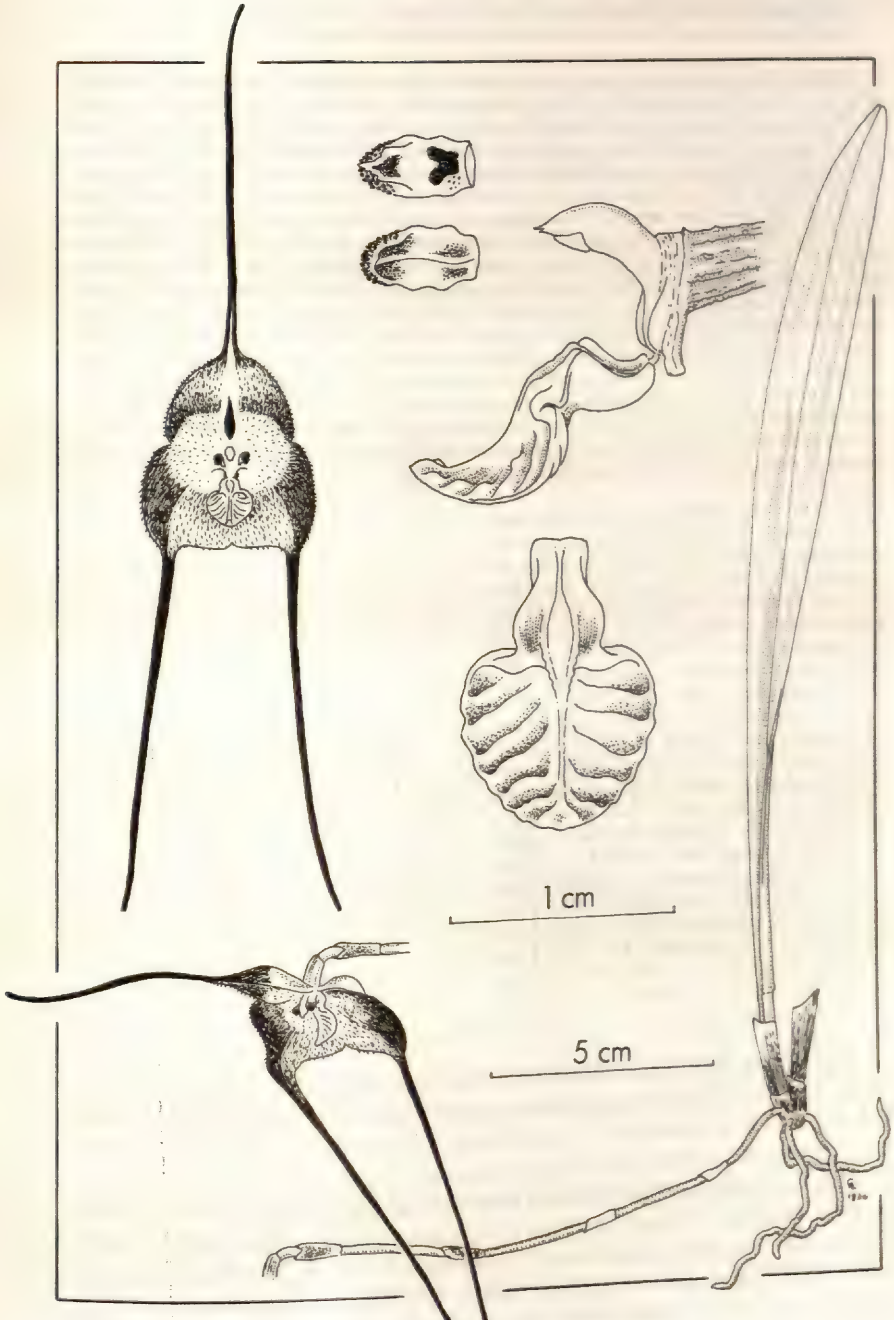


Plate 87. *Dracula simia* (Luer) Luer

Dracula sodiroi (Schltr.) Luer, Selbyana 2: 197, 1978.

Bas.: *Masdevallia sodiroi* Schltr., Repert. Spec. Nov. Regni Veg. 14: 120, 1915.

Ety.: Named in honor of Padre Alois Sodiro, who first collected this species.

Plant medium in size to large, epiphytic to terrestrial, densely caespitose; roots coarse. Ramicauls stout, erect, 3-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 15-25 cm long including an indistinct, conduplicate petiole, the blade narrowly elliptical, acute, 1.2-1.6 cm wide, gradually narrowed below into the subpetiolate base. **Inflorescence** an erect, few-floweed raceme, usually 2-3 pendent flowers produced simultaneously, borne by a stout, erect, purple, multi-bracted peduncle 15-25 cm long, from low on the ramicaul; floral bract tubular, 10-12 mm long; pedicel 10-20 mm long; ovary deep purple, 6-10 mm long, subverrucose, round in cross-section ; **sepals** bright orange, with the midveins purple-brown, densely white-pubescent within, the dorsal sepal obovate-ob-triangular, truncate, 16 mm long, 12 mm wide, connate to the lateral sepals for 15-16 mm to form a conical or campanulate sepaline tube, the apex transversely obtuse, abruptly contracted into a slender, perpendicularly descending, dark purple-brown tail 15-20 mm long, the lateral sepals connate 14 mm into an obovate-obtriangular, truncate, concave lamina 16 mm long, 20 mm wide, the transversely obtuse apices contracted into slender tails similar to that of the dorsal sepal; **petals** orange, thin, obovate-spathulate, 7 mm long, 3 mm wide, the apex narrowly obtuse, with a thin, minutely erose margin, and with a layer of small verrucosities inside the margin; **lip** orange, oblong, 8 mm long, 2 mm wide, the apex or epichile ill-defined, obtuse, with a pair of irregular rugae on the dorsum, the hypochile oblong, with a pair of erect, parallel lamellae, cleft between, the base hinged to the column-foot; **column** yellow, semiterete, 7 mm long, with a stout foot 2 mm long.

ECUADOR: Prov. of Pichincha: on the west slopes of Mt. Pichincha, June 1900, *A. Sodiro s.n.* (Holotype presumably destroyed at B); between Chiriboga and Guajalito, alt. 2000 m, 20 Jan. 1956, *E. Asplund 20516* (B, G, K, NY); western slopes of Pichincha, collected by A. Andreetta & A. Hirtz, flowered in cultivation in Cuenca, 6 Feb. 1978, *C. Luer 2471* (SEL) and at Paute, 24 May, 1988, *C. Luer 13638* (MO); Chiriboga, alt. 1800 m, Oct. 1979, *C. Luer, J. Luer & A. Hirtz 2471* (SEL); terrestrial on the road embankment above Mindo, alt. 2400 m, 11 Nov. 1979, *C. Luer, J. Luer & A. Hirtz 4278* (SEL); epiphytic in cloud forest between Tandayapa and Mindo, alt. 2320 m, 13 Mar. 1982, *C. Luer, A. Hirtz & S. Dalström 7290* (SEL); between Nono and Nanegalito, alt. 2160 m, 9 June 1986, *C. Dodson & T. Dodson 16501* (MO); above Tandayapa, alt. 2200 m, 5 Dec. 1986, *C. Dodson, E. Hagsater & A. Hirtz 16656* (MO). Prov. of Imbabura: Río Los Cedros, flowered in cultivation by J. Sönnemark, Aug. 1993, *S. Dalström s.n.* (MO). Prov. of Carchi: above Río Verde, Cerro Golondrinas, alt. 2070-2430 m, 4 Dec. 1987, *W. S. Hoover 2305* (MO).

This unusual species is without close relatives. It was first discovered in 1900 by Father Sodiro of Quito in the wet forests on the western slopes of Pichincha where it is still locally abundant today. Great clumps with hundreds of flowers have been seen growing terrestrially at the crests of roadcuts.

This is the only species of *Dracula* that produces more than one flower at a time on erect racemes. There is, however, at least one population that produces only a single flower on a peduncle shorter than the leaves. The bright orange to purple flowers are bell-shaped and pendent with all three tails pointing downward. The petals are thin, but a vestige of the bivalved apex is present in the row of denticles inside the margin. The lip is narrowly oblong without a distinct division between the epichile and hypochile. The epichile is shallowly concave with a few irregular teeth, and the hypochile possesses a pair of erect lamellae.

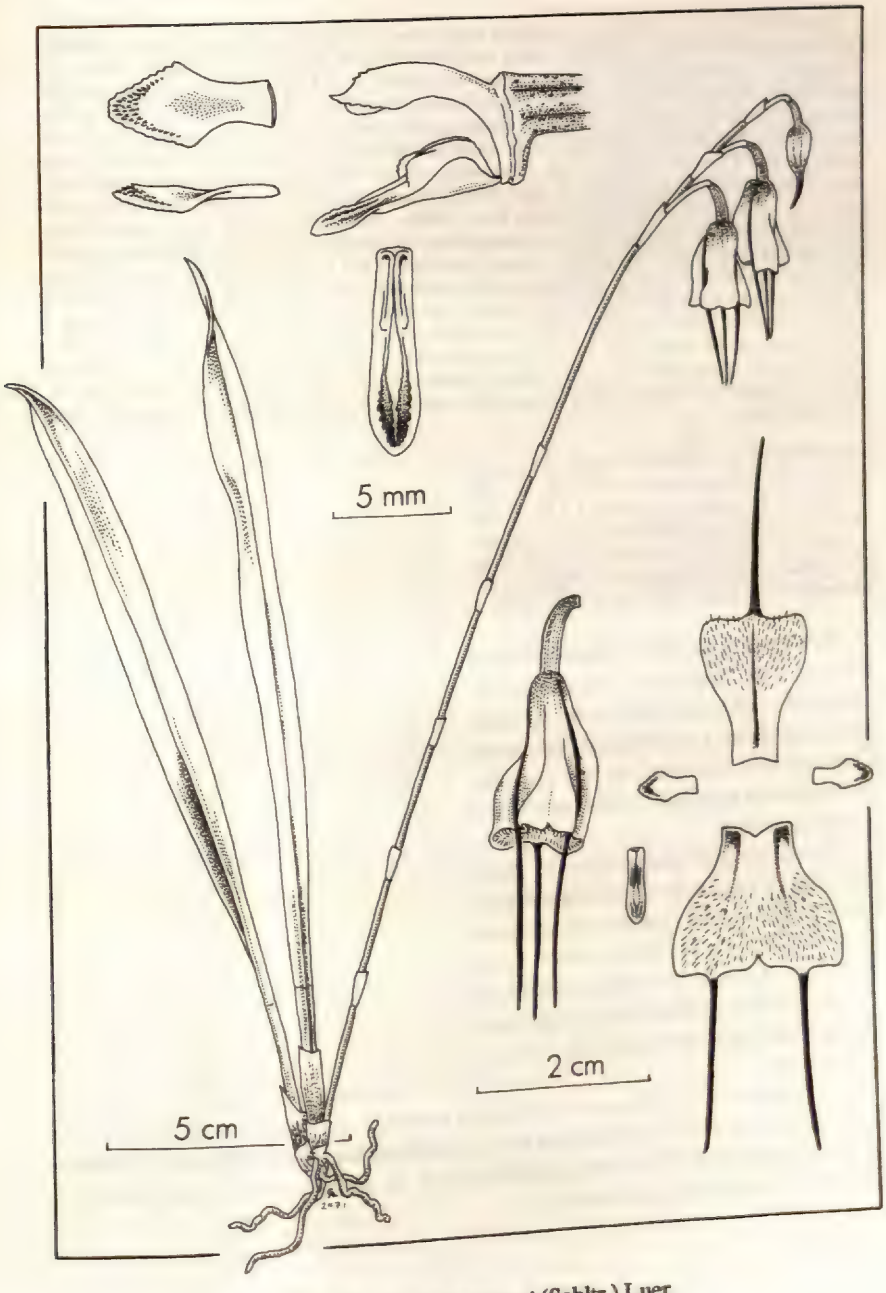


Plate 88. *Dracula sodiroi* (Schltr.) Luer

Dracula syndactyla Luer, Selbyana 5: 389, 1981.

Ety.: From the Greek *syndactylos*, "with webbed fingers," in allusion to the appearance of the epichile.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, elliptical, lightly plicate, acute, 12-17 cm long, 2-3.2 cm wide, narrowed below to the conduplicate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a slender, more or less horizontal, several-bracted peduncle 8-12 cm long, from low on the ramicaul; floral bract tubular, 6-7 cm long; pedicel 7-8 mm long; ovary 4 mm long, round in cross-section; **sepals** dull white, suffused with red-brown below the middle and hirsute within, the dorsal sepal transversely ovate, 10 mm long, 15 mm wide, connate to the lateral sepals for 5 mm to form a broadly cupped flower, the apex obtuse, abruptly contracted into a slender, purple-brown tail 2.5-4.5 cm long, the lateral sepals broadly ovate, oblique, 10 mm long, 13 mm wide, connate 8 mm into a shallow mentum, the apices obtuse, contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with brown, cartilaginous, oblong, 3 mm long, 2 mm wide, the apex rounded, bivalvate, verruculose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with rose, subpandurate, thick, 7 mm long, 5 mm wide, the epichile suborbicular, 4 mm long, 5 mm wide, deflexed on the hypochile, shallowly concave, filled with about 9 smooth, radiating ribs that protrude from the thin subdigitate, non-involute margin, the hypochile ovoid, 4 mm long, 4 mm wide, with erect, obtuse, marginal angles, cleft centrally between lamina each with an oblique tooth, the concave base hinged to the column-foot; **column** yellow-white, stout, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Nariño: Munic. of Ricaurte, epiphytic in cloud forest above La Planada, alt. 1950 m, collected by A. Hirtz, C. Luer & J. Luer, 2 Nov. 1979, flowered in cultivation by Hirtz in Quito, Ecuador, 18 May 1981, *C. Luer 6313* (Holotype: SEL); same collection, flowered in cultivation at Colomborquídeas, 5 Mar. 1989, *C. Luer 14095* (MO).

This species was first collected without flowers amid plants of *D. hirtzii* and *D. radiosa* by Alexander Hirtz and cultivated by him in Quito. Later, the relatively small flowers distinguished by the epichile of the lip that resembles a hand of webbed fingers appeared.

The habit with narrow leaves and a descending peduncle is not remarkable. The small, cupped flowers are suffused with red-brown as are the small tails. Most remarkable is the concave epichile of the lip with the radiating lamellae protruding beyond the thin margins as a row of small points.

In addition to *D. radiosa* at the locality where *D. syndactyla* was discovered, there is also a variable, intermediate taxon, which has been assumed to be a naturally occurring hybrid. This taxon, described as *D.* X *radio-syndactyla* has proved to be more frequent than *D. syndactyla*.

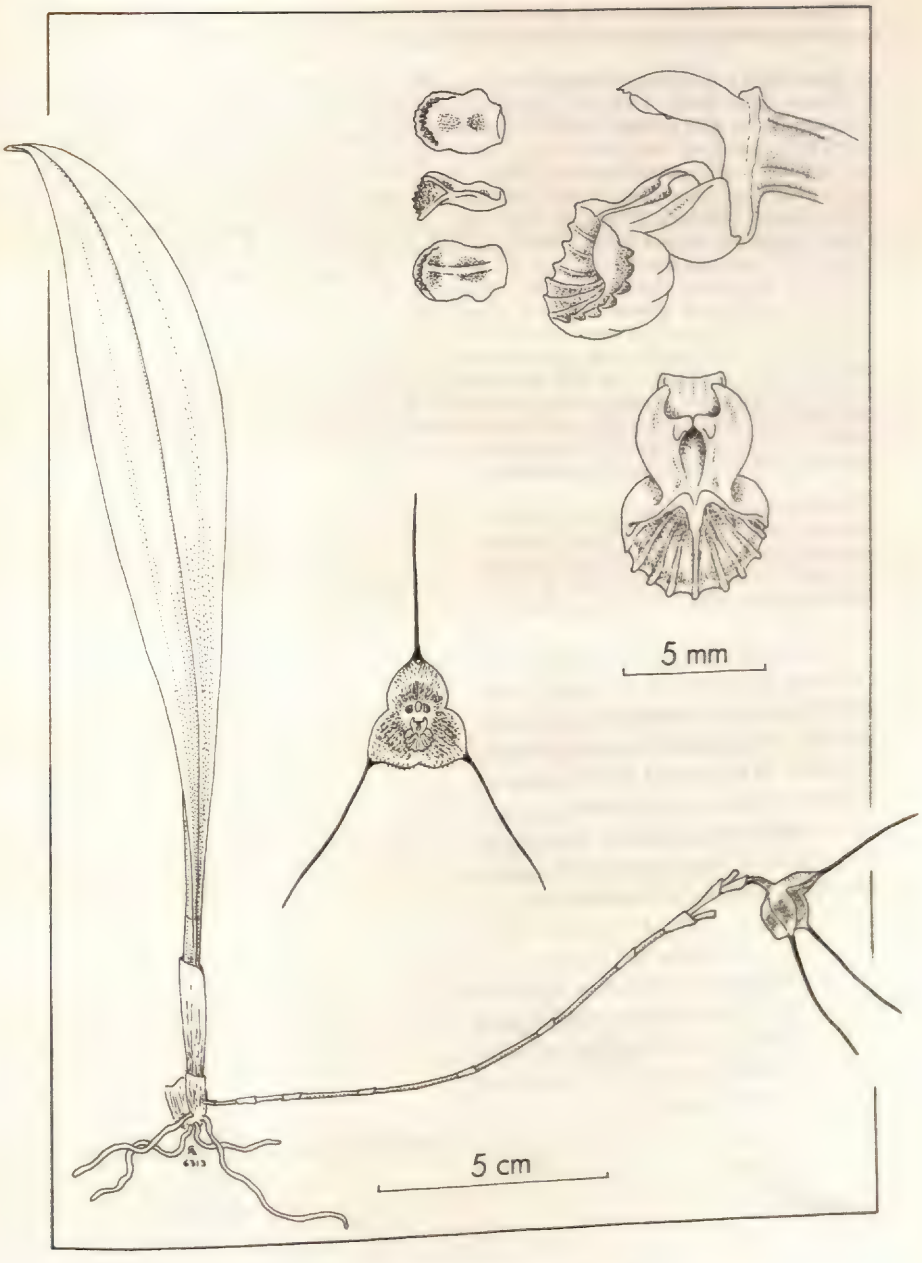


Plate 89. *Dracula syndactyla* Luer

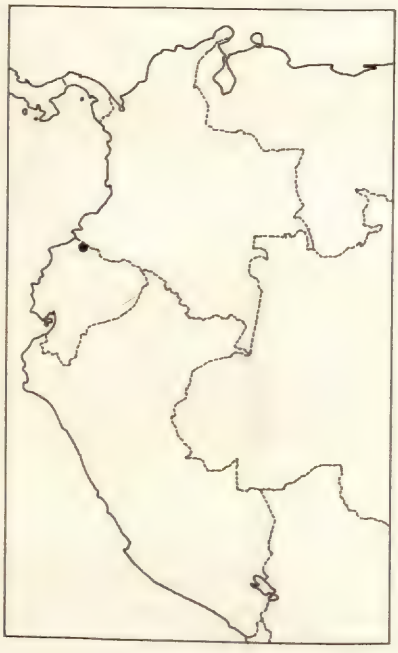
Dracula trinympharum Luer, sp. nov.

Ety.: From the Latin *trinympharum*, "of three nymphs," referring to the three proprietors of J & L Orchids, Easton, Connecticut, who, with Alexander Hirtz, discovered this species.

Species haec *Draculae hawleyi* Luer affinis, sed sepalis albis intus sparsim et breviter minute rubro-papillosis lateralibus profunde connatis et labello purpureo epichilio parvo saccato differt.

Plant large in size, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 3-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly linear-obovate, acute, 20-34 cm long, 2-3 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by an erect, sparsely bracted peduncle 20-29 cm long, from low on the ramicaul; floral bract, tubular, oblique, 10-15 mm long; pedicel 25-30 mm long; ovary 8-10 mm long, round in cross-section; **sepals** yellowish white, with scattered red, cellular papillae within, the dorsal sepal ovate, 25 mm long, 18 mm wide, connate to the lateral sepals for 11 mm to form a broad, sepaline cup, the apex obtuse, contracted into a slender tail 5 cm long, the lateral sepals ovate, oblique, 40-45 mm long, connate 20-25 mm into an oblong, bifid lamina 28 mm wide, with a broad mentum, the apices acute, contracted into tails similar to that of the dorsal sepal; **petals** ivory, marked with purple, cartilaginous, obovate, 4 mm long, 2.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina short, acute, the outer lamina obtuse, recurved; **lip** red-purple, obscutely pandurate, 7 mm long, 4 mm wide, the epichile suborbicular, deeply concave, inflated with the anterior margin involute, 3.5 mm long, 4 mm wide, with minutely denticulate margins, with a central, verrucose carina and 2-3 incomplete lamellae radiating on either side, the hypochile indistinctly demarcated from the epichile, suboblong, 4 mm long, 3.5 mm wide, with erect, narrowly rounded, marginal angles, cleft centrally between a pair of plates, the concave base hinged to the column-foot; **column** white, stout, semiterete, 4 mm long, with a stout foot equally long.

ECUADOR: Prov. of Carchi: epiphytic in cloud forest above Maldonado, alt. ca. 2000 m, Nov. 1991, flowered in cultivation at J & L Orchids, Easton, CT, Sept. 1993, *C. Head, M. Webb, L. Winn & A. Hirtz 993-434* (Holotype: MO), C. Luer illustr. 16992.



This species is the latest of numerous, endemic members of the genus to be discovered in the valley west of Tulcán toward Maldonado in northernmost Ecuador. It was found out of flower by Alexander Hirtz, and it flowered later at J & L Orchids in Connecticut. It is related to the group of large species with more or less erect peduncles as characterized by *D. dalstroemii*, *D. gigas*, *D. hawleyi* and *D. levii*. It is most similar to *D. hawleyi*, and it is distinguished from it as well as from all the others by the deeply connate lateral sepals, sepals studded within with red papillae, and a smaller, red-purple lip with a small, saccate epichile.

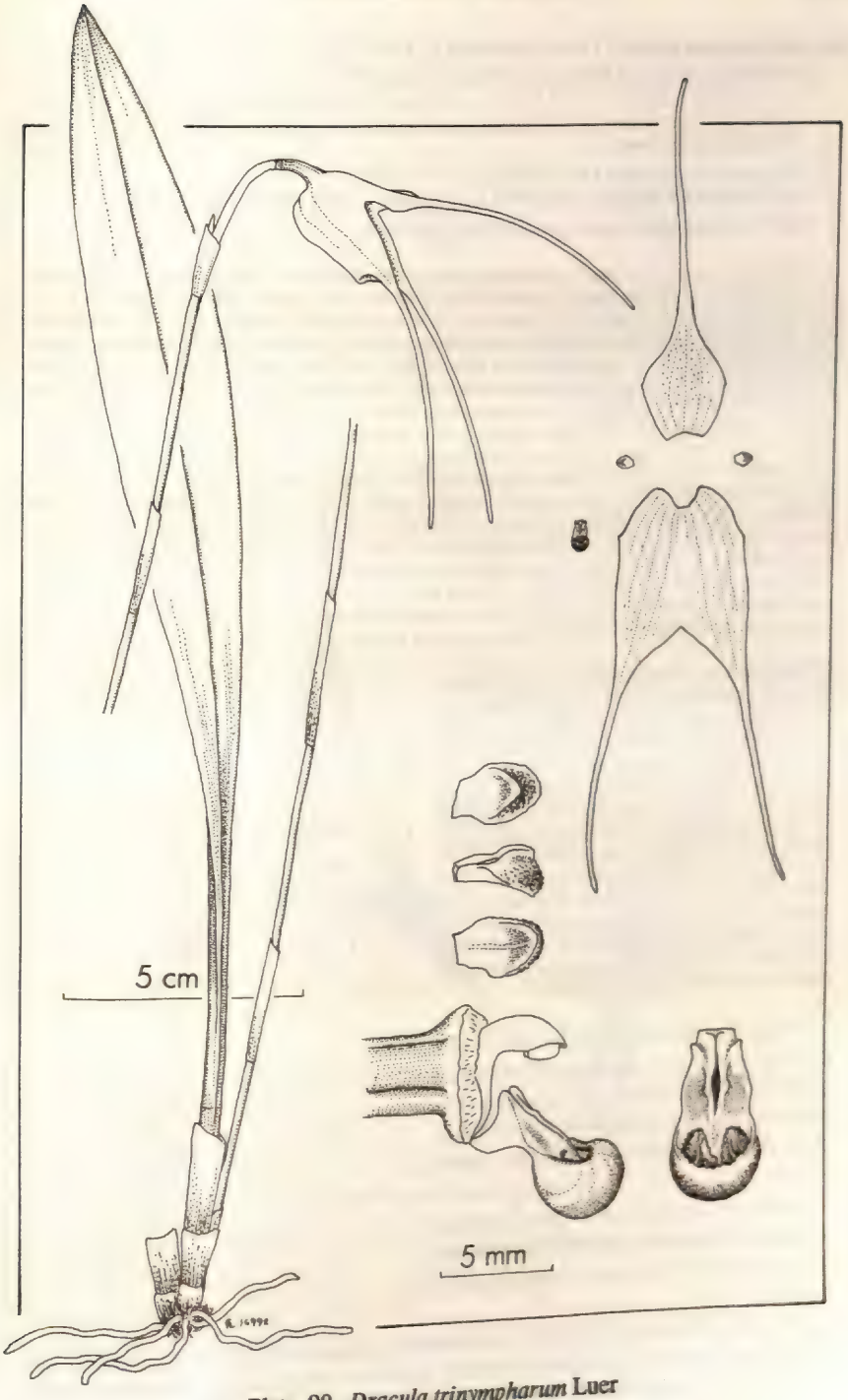


Plate 90. *Dracula trinympharum* Luer

Dracula tubeana (Rchb.f.) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia tubeana* Rchb.f., Gard. Chron. 1: 234, 1878.

Ety.: Named in honor of Herr M. Tube, nurseryman in Dresden, Saxony, and formerly chief gardener for Herr Hofrath Kiel in Leipzig, who for many years provided Reichenbach with much valuable orchid material.

Syn.: *Masdevallia tarantula* Luer, Phytologia 39: 230, 1978.

Ety.: Named for the similarity of the flower to a Tarantula, a genus of large, hairy spiders.

Syn.: *Dracula tarantula* (Luer) Luer, Selbyana 2: 198, 1978.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls slender, erect, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, elliptical, acute, 15-21 cm long including an indistinct petiole, 2.5-4 cm wide, the base gradually narrowed into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a slender, ascending to descending peduncle 11-18 cm long, from low on the ramicaul; floral bract, tubular, 7-10 mm long; pedicel 15-25 mm long; ovary 7-8 mm long, subverrucose, round in cross-section; **sepals** light yellowish, mottled and suffused with red-purple or red-brown above the middle, pubescent within, the dorsal sepal ovate, 35-40 mm long, 19-22 mm wide, connate to the lateral sepals for 8-9 mm to form a widely spread flower, the acute apex acuminate into a slender, erect, dark purple tail 7-8 cm long, the lateral sepals ovate, oblique, 40 mm long, 20-23 mm wide, connate 20-23 mm to form a broad, shallow, white mentum, the acute apices attenuated into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with orange and brown, cartilaginous, oblong, 4 mm long, 1.5-2.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, recurved; **lip** white, spathulate, 10-11 mm long, 11 mm wide, the epichile reniform, concave, 6 mm long, 11 mm wide, with the margins incurved, with multiple, radiating lamellae, the hypochile oblong, 5 mm long, 4 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** light yellow, stout, semiterete, 4 mm long, with a stout foot equally long.

ECUADOR: Prov. of Pichincha: erroneously reported from the province of Bolívar, Río de Chimbo, alt. 300 m, on trees in the hot planes, Alausí, Apr. 1873, *F. C. Lehmann 57 t. 1.* (Holotype: W); epiphytic in cloud forest above Chiriboga, alt. ca. 2000 m, 1975, collected by B. Malo, flowered in cultivation near Tarqui, 4 Feb. 1978, *C. Luer 2454* (SEL, type of *M. tarantula*); old road between Quito and Santo Domingo, collected by R. Hawley, R. Levi & W. Teague, 23 May 1976, flowered in cultivation in Mill Valley, CA., 11 Oct. 1978, *C. Luer 3456* (SEL); same collection, flowered in cultivation at Colomborquídeas, 15 May 1981, *R. Escobar s.n.* (JAUM); same collection, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13146* (MO).

This species was first discovered by Consul Lehmann, and his watercolor painting is at W (Vienna). An error was made in citing the locality as Río Chimbo, at an altitude of 900 feet in the hot, coastal plains of Ecuador. *Dracula tubeana* is now known to occur on the cool, western slopes of Pichincha around 2000 meters above sea level where it is apparently endemic.

In habit, this species is large with broad leaves and a descending peduncle. The handsome flowers are distinguished by the acute, long-tailed, pubescent sepals, ivory basally with a broad, white mentum, and red-purple above the middle. The snow white epichile of the lip is transverse with recurved sides and with multiple, radiating veins within.

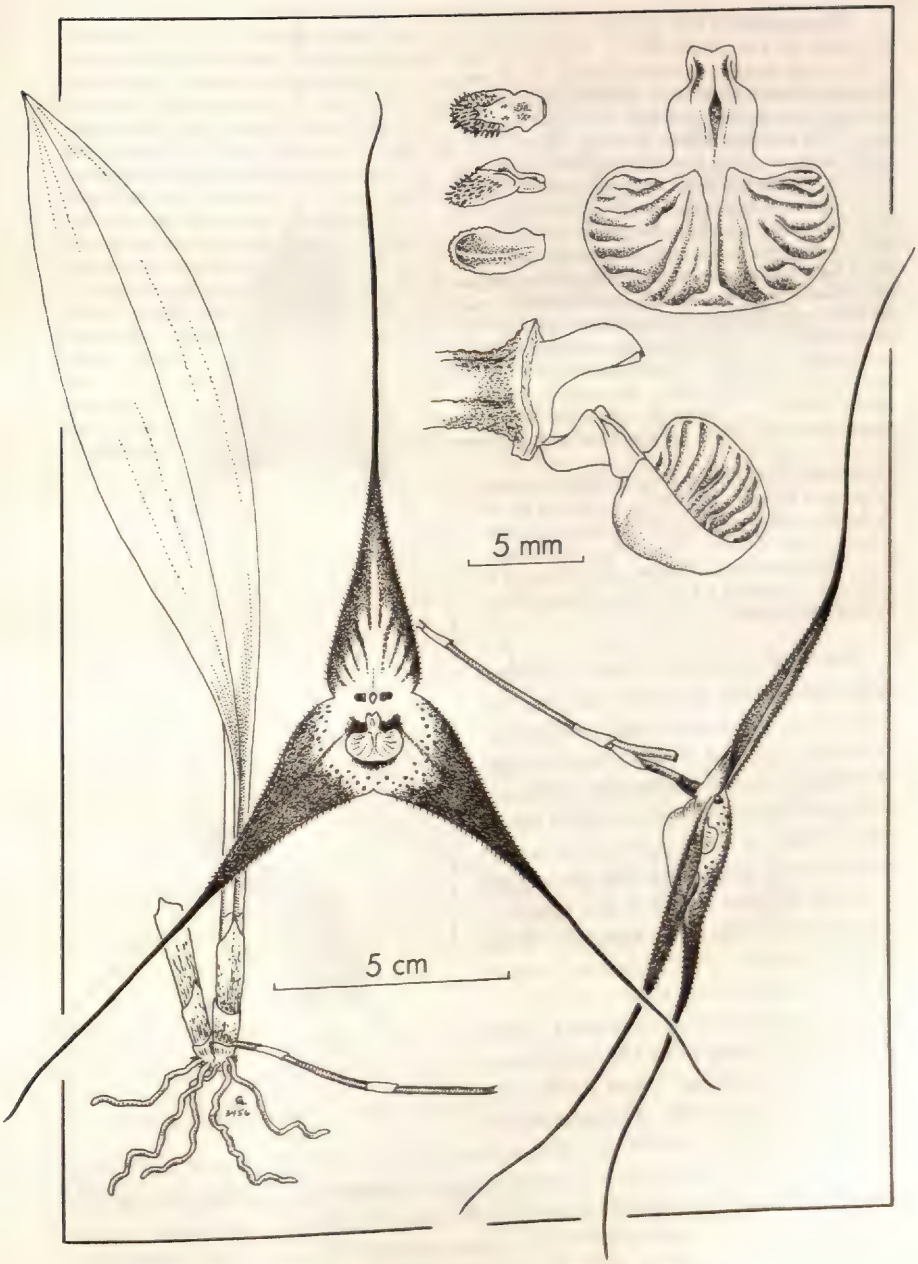


Plate 91. *Dracula tubeana* (Rchb.f.) Luer

Dracula ubangina Luer & Andreetta, Phytologia 47: 62, 1980

Ety.: Named for the fancied resemblance of the black flower with a large, round lip to a Ubangi tribesman.

Plant medium in size, epiphytic, caespitose; roots coarse. **Ramicauls** stout, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 10-15 cm long including an indistinct petiole 3-5 cm long, 2-3.5 cm wide, the base narrowly cuneate into the conduplicate, petiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a horizontal to descending peduncle 10-15 cm long, from low on the ramicaul; floral bract, tubular, oblique, 10-13 mm long; pedicel 15-18 mm long; ovary 8 mm long, subverrucose, round in cross-section; **sepals** black, the dorsal sepal glabrous, with black veins radiating on a greenish background in a band above the column and petals, the blade broadly ovate, 24-26 mm long, 22-26 mm wide, connate to the lateral sepals for 9 mm to form a flat, widely spread flower, the apex subacute, contracted into a slender, erect, black tail 5-6 cm long, the lateral sepals glabrous except for a sparse, short pubescence on the lower, inner portions, black but occasionally with a few, small, less intensely colored spots also on the lower, inner portions, the blades broadly ovate, oblique, 27-30 mm long, 21-25 mm wide, connate 15 mm to form a shallow mentum, the apices subacute, contracted into slender, black tails similar to that of the dorsal sepal; **petals** white, marked with purplish black, cartilaginous, oblong, 6 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina rounded; **lip** white, spathulate, 18 mm long, 11 mm wide, the epichile ovoid, concave, 13 mm long, 11 mm wide, with the margins involute, with multiple, branching, elevated, radiating veins within, the hypochile oblong, 6 mm long, 5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** white, stout, semiterete, 6.5 mm long, with a stout foot 3 mm long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest near Mindo, alt. 1800 m, collected by A. Andreetta and A. Hirtz, Jan. 1975, flowered in cultivation in Cuenca, 6 Feb. 1978, *C. Luer 2470* (Holotype: SEL); forest west of Quito, 1992, flowered in cultivation in Quito by J. Del Hierro, 16 Mar. 1992 *S. Dalström 1663* (MO).

This species, first discovered by Father Angel Andreetta, is closely allied to the larger *Dracula vampira*, and its distribution also coincides with the latter on the western slopes of Pichincha. *Dracula ubangina* was later believed to be a small, black form of *D. vampira*, but recent collections in areas other than the original locality suggest that it is not merely a small color-form of *D. vampira*. It remains relatively rare, however, having been collected on only a few occasions.

The color of the sepals is black. Only a pale green, black-striped band is present across the base of the dorsal sepal above the column and petals. Occasionally, a few, small, indistinct flecks with less pigment occur on the inner, lower portions of the lateral sepals where there is a short, sparse pubescence. Except for the difference in size, the petals and lips of the two taxa are similar. Therefore, there is really very little to distinguish the two except for size and color of the floral parts. Although the flowers of *D. vampira* vary in size and intensity of pigmentation, there is a noticeable gap between the average and *D. ubangina*. DNA studies are needed.

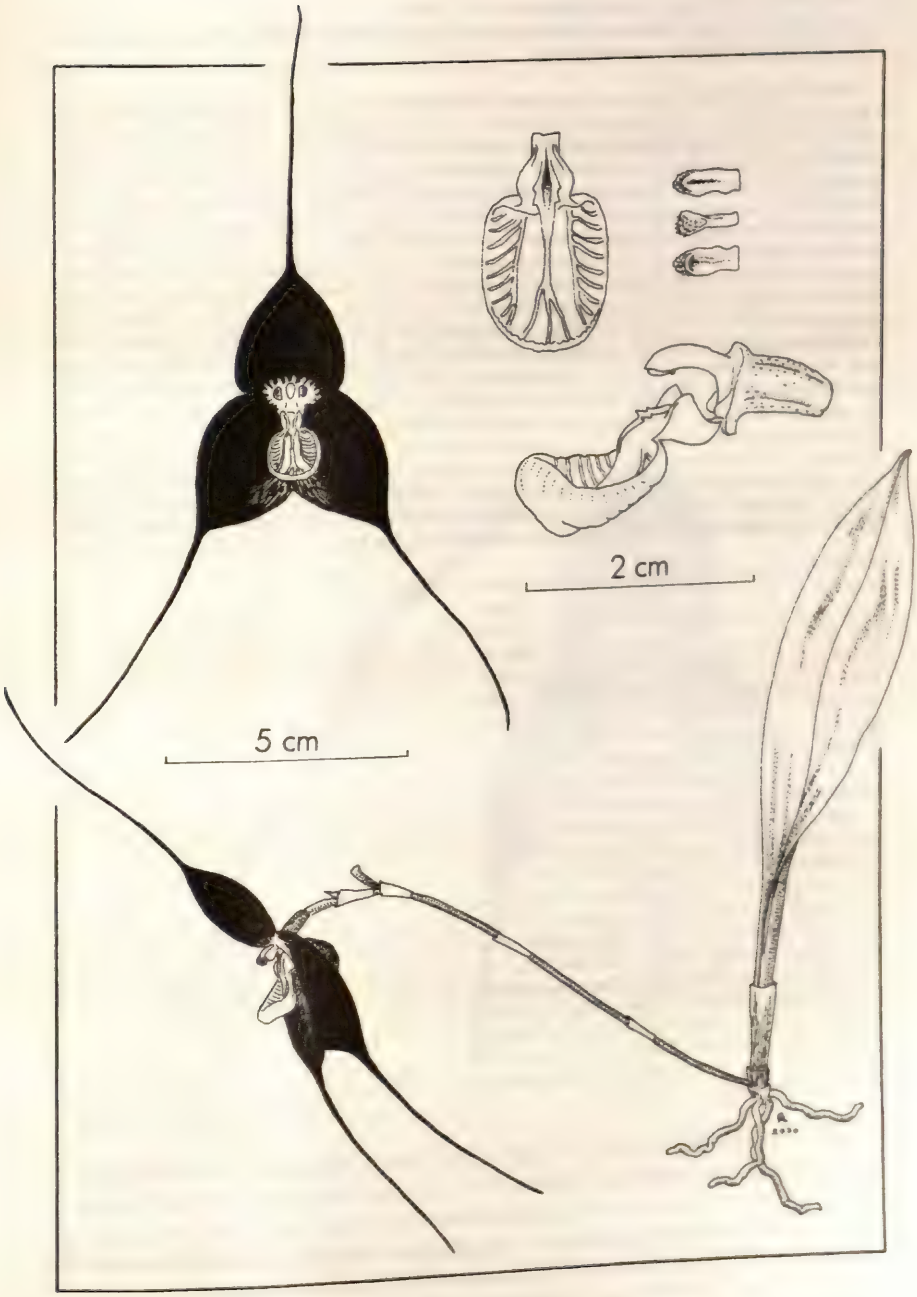


Plate 92. *Dracula ubangina* Luer & Andreetta

Dracula vampira (Luer) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia vampira* Luer, Phytologia 39: 231, 1978.

Ety.: Named for the resemblance of the flowers to a bat; from the old middle European *vampir* for a vampire, and *Vampirus*, a genus of bats.

Plant large, epiphytic, caespitose; roots coarse. **Ramicauls** stout, erect, 4-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, sometimes subplicate, carinate, narrowly elliptical, acute, 15-28 cm long including an indistinct petiole 5-8 cm long, 4-5.5 cm wide, the base narrowly cuneate into the conduplicate, petiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 20 cm long of showy flowers, borne by a stout, horizontal to descending peduncle 20-40 cm long, from low on the ramicaul; floral bract, tubular, oblique, 12-25 mm long; pedicel 18-25 mm long; ovary 10 mm long, subverrucose, round in cross-section; **sepals** greenish but almost totally obscured by multiple, thin, more or less parallel, longitudinal, blackish purple veins that converge toward the apices, sometimes diffusely and intensely suffused with purple-black, the inner surfaces essentially glabrous, the blade of the dorsal sepal broadly ovate, 3.5-5.5 cm long, 3.5-4 cm wide, connate to the lateral sepals for 1.5 cm to form a flat, widely spread flower, the apex subacute to obtuse, contracted into a slender, erect, blackish tail 5-11 cm long, the blades of the lateral sepals broadly ovate, oblique, 4-6 cm long, 3-4 cm wide, connate 1.5 cm to form a broad, shallow mentum, the subacute to obtuse apices contracted into slender, blackish tails similar to that of the dorsal sepal; **petals** white, marked with purple, cartilaginous, oblong, 6 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded; **lip** white, with pinkish to yellowish veins, spathulate, 15-24 mm long, 11-17 mm wide, the epichile ovoid, concave, 10-17 mm long, 11-17 mm wide, with the margins involute, with multiple, branching, elevated, radiating veins within, the hypochile oblong, 7 mm long, 5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** yellow, stout, semiterete, 7 mm long, with a stout foot nearly as long.

ECUADOR: Prov. of Pichincha: epiphytic in cloud forest along the old road between Quito and Santo Domingo de los Colorados, alt. ca. 2000 m, collected by B. Malo, flowered in cultivation at Tarqui south of Cuenca, 20 July 1977, *C. Luer 1819* (Holotype: SEL); "Corazón," alt. 1800-2200 m, Oct.-Nov. year not stated, *F. C. Lehmann 7042* (K); between Quito and Santo Domingo, Feb. 1975, *B. Malo s.n.* (JAUM); same collection, flowered in cultivation by M. & O. Robledo at La Ceja, 16 Apr. 1988, *C. Luer 13200* (MO); same area, collected by A. Andreetta & A. Hirtz, Jan. 1973, flowered in cultivation at Cuenca, 12 July 1977, *C. Luer 1692* (SEL), flowered in cultivation at Paute, 17 Apr. 1988, *C. Luer 13728* (MO); epiphytic in cloud forest between Calacalí and La Liberia, alt. 2200 m, 7 Apr. 1984, *C. Luer, A. Hirtz, S. Dalström & T. Höijer 10012* (MO); cloud forest below Lloa, alt. 2000 m, collected by L. & J. Posada and A. Hirtz, 8 Jan. 1988, flowered in cultivation at Colomborquídeas 12 Dec. 1988, *R. Escobar 3987* (JAUM); Río Cinto west of Lloa, alt 2000 m, 12 Oct. 1990, *A. Hirtz, X. Hirtz & J. Del Hierro 5100* (MO); same area, alt. 2200 m, 20 Feb. 1992, *S. Dalström 1514* (MO).

This magnificent species, once called the "black chimaera," was first discovered a century ago by mining engineer F. C. Lehmann, German consul at Popayán, Colombia, in the same area of Ecuador where it is found today. His specimen at Kew had been annotated *Masdevallia chimaera* by Kränzlin. Lehmann's watercolor painting of this species is in the Reichenbach Herbarium in Vienna.

There is no further record of the species until plants were exported from Ecuador by José Strobel in 1965 and cultivated by Henry T. Scardefield in New York. Benigno Malo exported plants to Colombia about ten years later, and contributed an article on the "black *Masdevallia chimaera*" to Orquideología published in 1975.

Although limited in distribution to the forested, western slopes of Mt. Pichincha, *Dracula vampira* is locally abundant. Great masses of plants accumulate

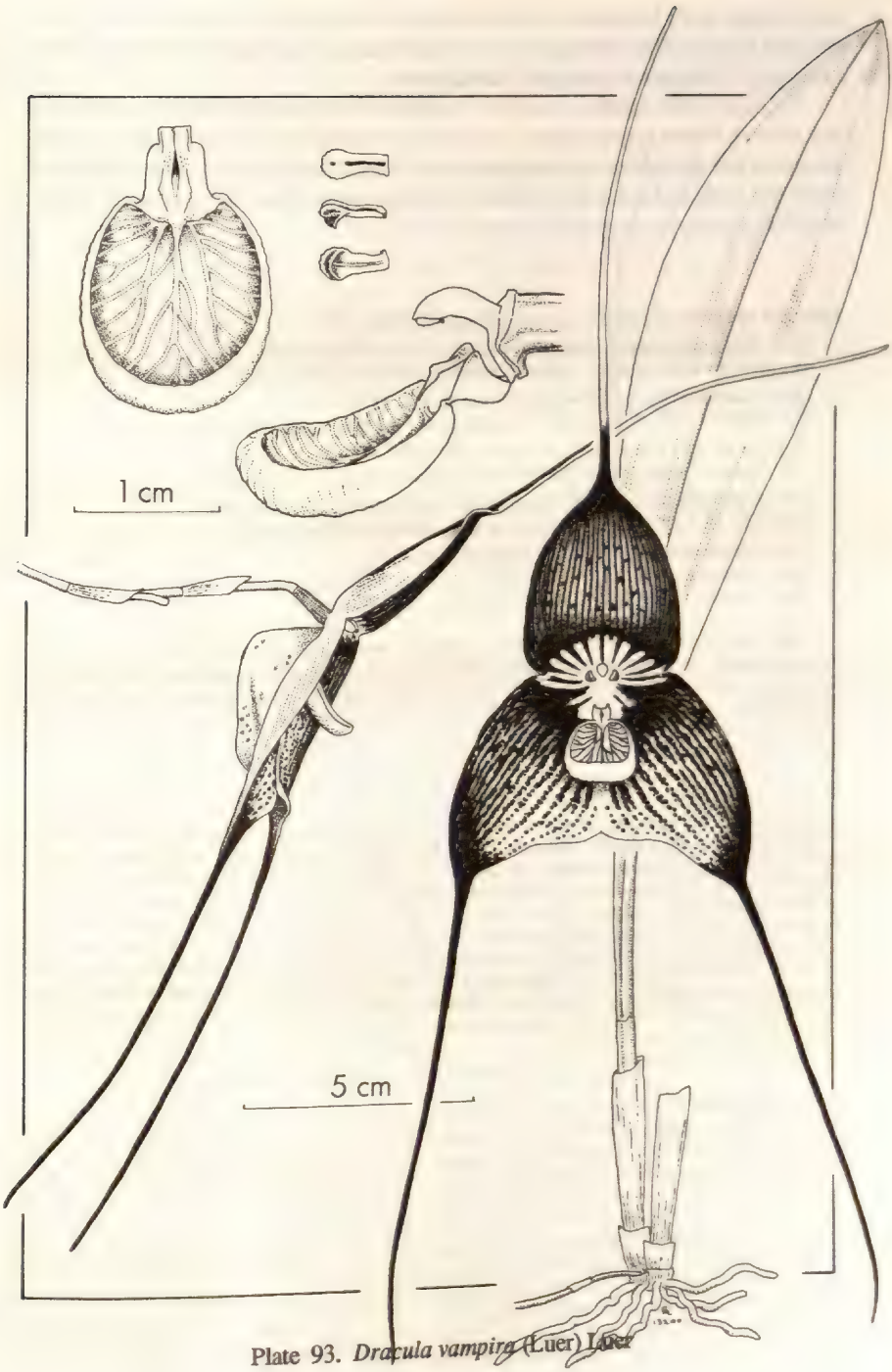


Plate 93. *Dracula vampira* (Luer) Luer

in the damp, leafy humus on the lower parts of huge, epiphyte-laden trees. The fabulous flowers often emerge from the loose humus a considerable distance from the origin of their stems among the hidden plants.

The color of the sepals is variable. Sometimes the purplish black veins are so thin that the flower appears green. At the other extreme, the pigmentation may be so intense that the hairless sepals appear nearly black except at the coronet-like base above the petals and column. A closely related, smaller-flowered taxon with nearly solid black sepals is recognized as *Dracula ubangina*.

Dracula velutina (Rchb.f.) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia velutina* Rchb.f., Gard. Chron. 2: 420, 1875, not Rchb.f. 1877.
Ety: From the Latin *velutinus*, "velvety," referring to the dense pubescence of the sepals.

Syn.: *Masdevallia microglochin* Rchb.f., Flora 69: 558, 1886.
Ety.: From the Greek *microglochin*, "a minute barb," referring to the short sepaline tails.

Syn.: *Masdevallia trinema* Rchb.f., Flora 69: 558, 1886.
Ety.: From the Greek *trinema*, "three-thread-like," referring to the sepaline tails.

Syn.: *Masdevallia lactea* Kränzl., Repert. Spec. Nov. Regni Veg. 17: 420, 1921.
Ety.: From the Latin *lacteus*, "milky," referring to the color of the flowers.

Syn.: *Dracula lactea* (Kränzl.) Luer, Selbyana 2: 195, 1978.
Syn.: *Dracula microglochin* (Rchb.f.) Luer, Selbyana 2: 196, 1978.
Syn.: *Dracula trinema* (Rchb.f.) Luer, Selbyana 2: 198, 1978.

Plant small to medium in size, densely caespitose; roots slender. Ramicauls stout, erect, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical-linear, acute, 10-25 cm long, 0.8-2 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a loose, successively few-flowered raceme, occasionally single-flowered, borne by a slender, purple, descending to more or less horizontal peduncle 5-15 cm long, from low on the ramicaul; floral bract tubular, 6-9 mm long; pedicel 10-20 mm long; ovary purple-brown, 3-5 mm long, lightly subverrucose, round in cross-section; **sepals** white, more or less suffused with purple apically, basally or along the veins, densely pubescent within, the dorsal sepal transversely ovate, 6-9 mm long, 6-12 mm wide, connate to the lateral sepals for 3.5-6 mm to form a more or less cupped flower, the apex broadly obtuse, abruptly contracted into a slender, dark purple tail 2-5 cm long, the lateral sepals broadly ovate, oblique, 8-10 mm long, 8-10 mm wide, connate 7-10 mm to form a broad, shallow mentum, the apices obtuse to rounded, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with purple or brown, cartilaginous, oblong, 2.5-3 mm long, 1-1.3 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina obtuse, denticulate, the outer lamina obtuse, recurved; **lip** white, suffused with rose, spathulate, 4-5 mm long, 2.5-3 mm wide, the epichile ovoid, deflexed from the plane of the hypochile, shallowly concave, 2-2.25 mm long, 2.25-3 mm, with the margins thin, not involute, with a thick, more or less verrucose, primary carina flanked by a smaller carina on either side, sometimes with a few, small fragments of carina, the hypochile ovate, 2 mm long, 1.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellowish white, stout, semiterete, 3-3.5 mm long, bidentate at the tip, with a stout foot 2.5-3 mm long.

COLOMBIA: Dept. of Antioquia: Frontino, alt. 4000 ft., *G. Wallis s.n.* (Lectotype: W), C. Luer illustr. 16550; without locality *B. Roezl 378* (W); without locality, *F. C. Lehmann 3217* (W, type of *M. microglochin*); El Plateado, *Kalbreyer 1545* (B?, syntype of *M. lactea*); San Miguel, *Kalbreyer 1574* (B?, syntype of *M. lactea*); without locality, flowered in cultivation by M. & O. Robledo at La Ceja, 4 Oct. 1977, *C. Luer 1896* (SEL); Urrao, El Plateado, collected by E. Segura, Nov. 1975, flowered in cultivation by M. & O. Robledo at La Ceja, 10 Nov. 1978, long-tails, *C. Luer 2146* (SEL); same area, collected by E. Segura, flowered in cultivation by M. & O. Robledo at La Ceja, 14 Jan. 1979, *C. Luer 2283* (SEL); without locality, flowered in cultivation by M. & O. Robledo at La Ceja, 22 Nov. 1981, yellow tails, *C. Luer 6756* (SEL); same collection, flowered at

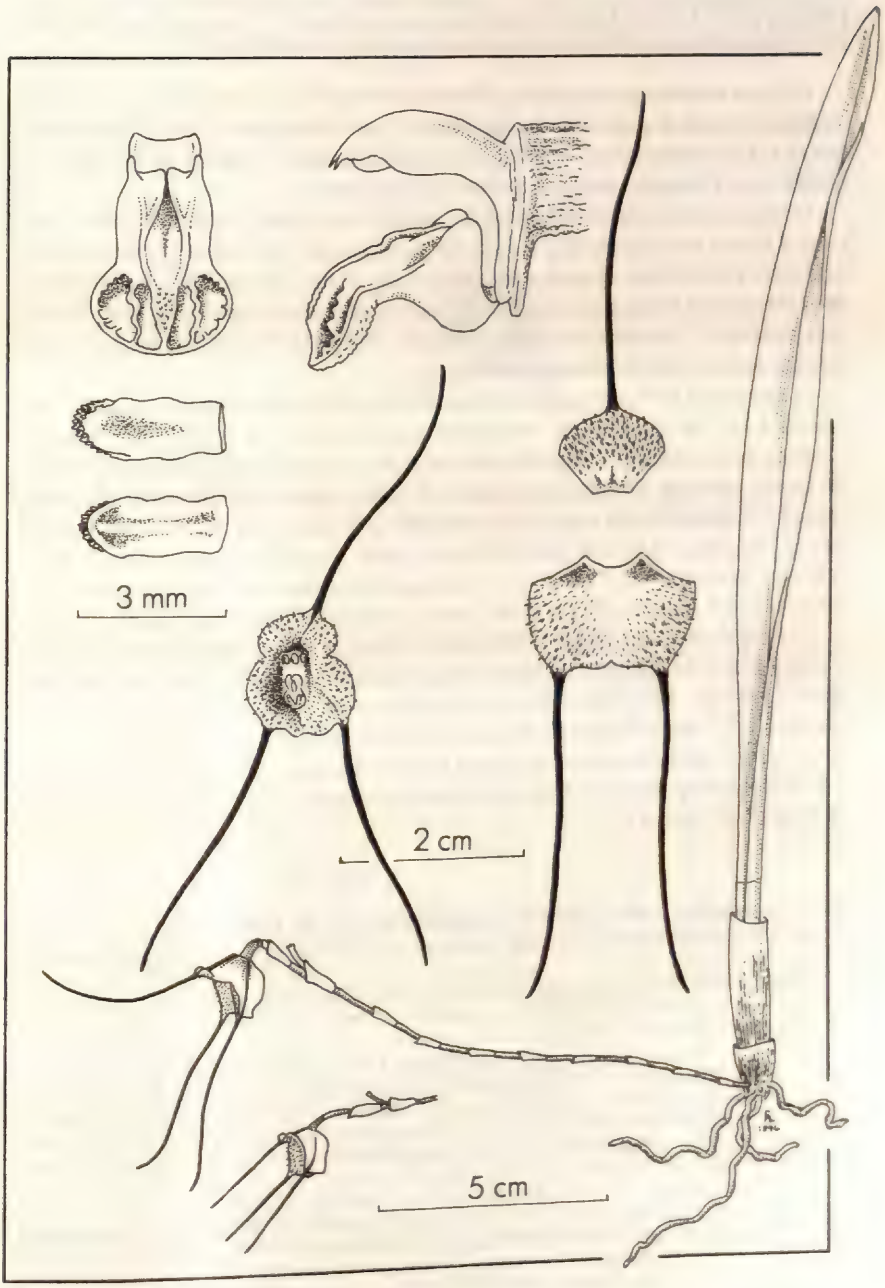


Plate 94. *Dracula velutina* (Rchb.f.) Luer

Colomborquídeas, 16 Apr. 1988, *C. Luer 13198* (MO); without locality, flowered at Colomborquídeas, 10 Apr. 1988, short tails, *C. Luer 13163* (MO); without locality, flowered at Colomborquídeas, 10 Apr. 1988, long tails, *C. Luer 13158* (MO); Dabeiba, Camparusia, collected by H. Angarita, Apr. 1986, flowered in cultivation by M. & O. Robledo at La Ceja, 17 Apr. 1988, *C. Luer 13204* (MO).

Dracula velutina is the smallest-flowered member of *D. houtteana-psittacina* complex. It was described by Reichenbach from collections by both Wallis and Roezl, but the collection by Wallis with a positive locality, Frontino in the Western Cordillera of Colombia, has been chosen as the lectotype.

Dracula velutina is identified by the slender leaves and a small, more or less cupped flower with slender tails commonly between two and four centimeters long, but forms with tails six or more centimeters long occur. The flowers are produced on few-flowered peduncles, occasional clones producing no more than one flower on a peduncle. The sepals are white, variously suffused with purple externally, and they are densely short-pubescent within.

A long-tailed form of this species, described by Reichenbach as *M. trinema*, was collected by Consul Lehmann, but the type-specimen at W (Vienna) bears none of his usual collection data. Kränzlin annotated the same specimen as the type of his *M. lactea*, although the published type of *M. lactea* was a collection of two specimens by Kalbreyer from near El Plateado (the gold mines) in the Western Cordillera of Antioquia. Kränzlin had applied the epithet *trinema* to *Dracula platycrater*. It is very probable that Lehmann's collection came from the same area near the mines where it, as well as short-tailed forms, are still known to occur today.

The lip is pink and small. The central carina of the epichile is more or less verrucose and flanked by a smaller carina to either side, as well as a few, incomplete fragments. The three carinae are reminiscent of the carinae seen in *D. erythrochaete* of Central America. The margins of the epichile of *D. velutina* are not involute, the central carina being higher than the margins. The epichile is more or less deflexed from the hypochile, sometimes at an angle of 90°, but most commonly at an angle of about 45°.

Dracula venefica Luer & Escobar, Orquideología 15: 39, 1981.

Ety.: From the Latin *venefica*, "a witch," in allusion to the hairy flowers with a protruding tongue.

Plant medium-sized to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2.5-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 18-28 cm long including an indistinct petiole, 2.3-3 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a sparsely bracted, ascending peduncle 8-11 cm long, from low on the ramicaul; floral bract, tubular, 10 mm long; pedicel 10-15 mm long; ovary deep purple, 6 mm long, subverrucose, round in cross-section; **sepals** white, densely spotted and suffused with purple-black, especially toward the base, with a dense, purple to white pubescence, broadly ovate with obtuse apices, the dorsal sepal 16 mm long, 16 mm wide, connate to the lateral sepals for 5 mm to form a widely spread, more or less flat flower, the apex contracted into a slender, erect, dark purple tail ca. 5 cm long, the lateral sepals oblique, 20 mm long, 15 mm wide, connate 12 mm to form a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with purple-brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina rounded, recurved; **lip** salmon-colored, spathulate, 8 mm long, 5 mm wide, the epichile suborbicular, concave with toothed involute margins and with 3 carinae within, 5 mm long, 5 mm wide, the hypochile oblong, 2.5 mm long, 2.5 mm wide, with erect, obtuse, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** yellow-white, stout, semiterete, 4 mm long, with a stout foot equally long.

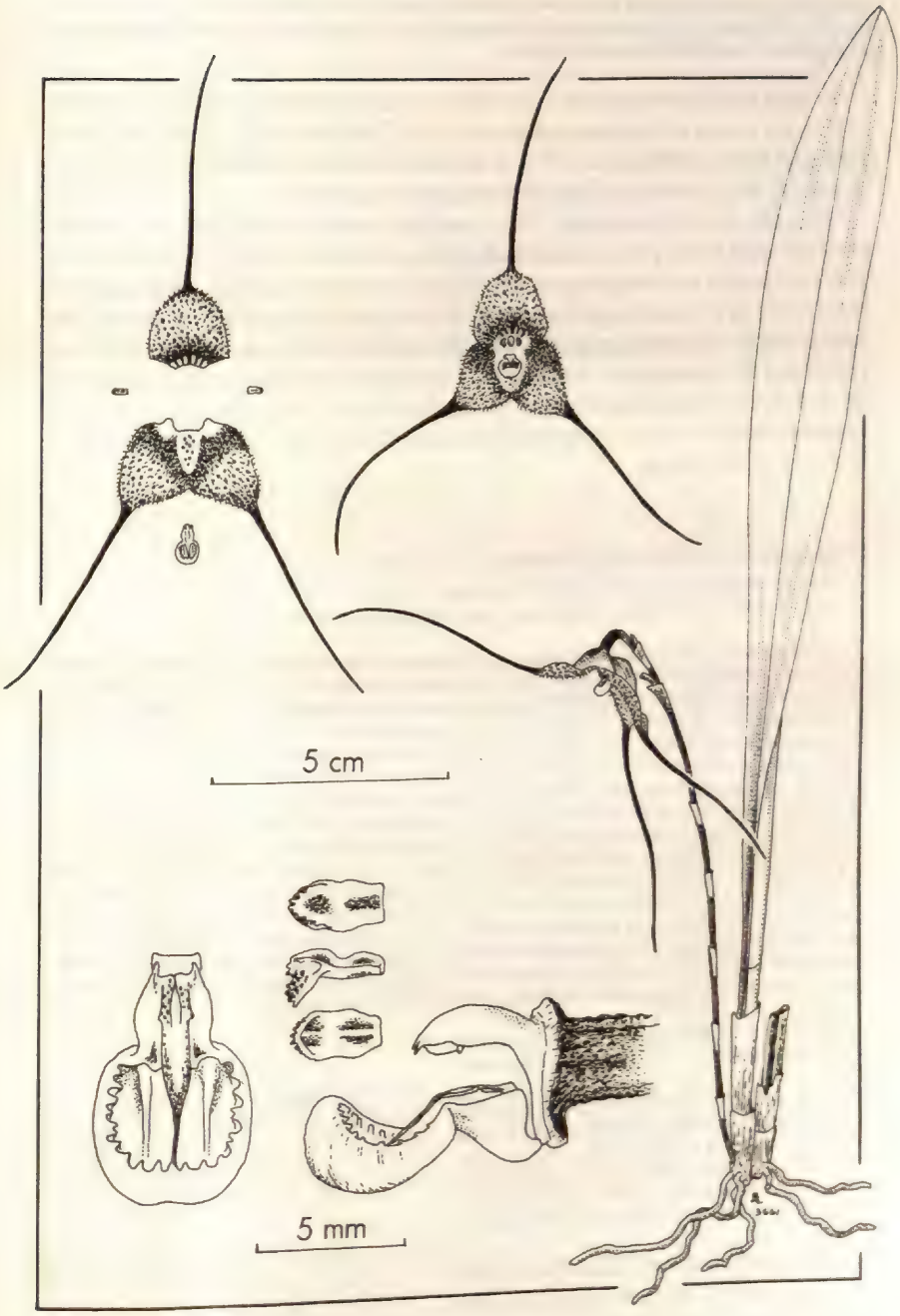


Plate 95. *Dracula venefica* Luer & Escobar

COLOMBIA: without collection data, flowered in cultivation at Colomborquídeas by L. & J. Posada, 14 Jan. 1979, *R. Escobar 1903* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 3661; same plant, flowered in cultivation 17 Apr. 1988, *C. Luer 13250* (MO).

A small plant described as *Dracula venefica* was discovered growing in a basket of *Dracula severa* at Colomborquídeas in 1979. The plant of *D. severa* had been purchased from a collector in 1977. It was assumed that a seedling had been collected with the *D. severa*, and was flowering two years later.

Since the date of publication, 1981, numerous volunteer seedlings of Draculas have appeared in the pots or baskets of other orchids in the open greenhouses of both the Posadas at Colomborquídeas and the Robledos at La Ceja. Some appear very similar to *D. venefica*, and it is now believed that *D. venefica* was merely the first of numerous, spontaneous hybrids. Presumably these supposed hybrids are products of *D. chimaera*, *D. roezlii* or *D. wallisii* and one of the smaller species in the *D. houtteana-psittacina* complex. Because the taxon described as *D. venefica* is characterized by a coarse pubescence and an inflexible lip, *D. chimaera* is most likely one of the parents.

Dracula venosa (Rolfe) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia venosa* Rolfe, Bull. Misc. Inform. 146, 1901.

Ety.: From the Latin *venosus*, "with veins," referring to the veins on the lip.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, 3-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly obovate, subacute, 12-23 cm long, 1.8-2.8 cm wide, gradually narrowed below to the conduplicate base. **Inflorescence** a single flower borne by a slender, descending, many-bracted peduncle 15-20 cm long, from low on the ramicaul; floral bract tubular, 6-7 mm long; pedicel 6-12 mm long; ovary 4 mm long, with 3 pairs of winged crests; **sepals** cream-colored, diffusely dotted with red-purple, sparsely short-pubescent within, the dorsal sepal ovate, 15 mm long, 10 mm wide, connate to the lateral sepals for 7 mm to form a sepaline cup, the apex acute, acuminate into a slender, orange-brown tail 15 mm long, the lateral sepals ovate-oblong, oblique, 16 mm long, connate 14 mm into an oblong, concave lamina 17 mm wide, the apices obtuse, contracted into yellow tails similar to that of the dorsal sepal; **petals** yellow, marked with red, cartilaginous, elliptical, 3 mm long, 1.75 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina indistinct, verrucose, the outer lamina round; **lip** red, subpandurate, thick, 4.5 mm long, 2.5 mm wide, the epichile suborbicular, convex, with a central carina and a few branching, incomplete veins, 1.5 mm long, 2.5 mm wide, the hypochile ovoid, 3 mm long, 2 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, stout, semiterete, 4 mm long, toothed at the apex, with a stout foot 2 mm long.

COLOMBIA?: Without locality or collector, brought to England from Vienna by *F. Sander s.n.* (Holotype: K).

ECUADOR: Prov. of Carchi: without recorded collector, above Maldonado, flowered in cultivation by M. & O. Robledo at La Ceja, 11 Oct. 1977, *C. Luer 1982* (SEL); 25 Apr. 1988, *C. Luer 13314* (MO); same area, collected by A. Andreetta, flowered in cultivation at Paute, Aug. 1990, *A. Hirtz 5021* (MO).

This species is one of many described by Rolfe without any collection data. The origin was stated to be Colombia, but plants answering the description are known only from northernmost Ecuador.

In habit, *D. venosa* is characterized by a cluster of narrow leaves and long,

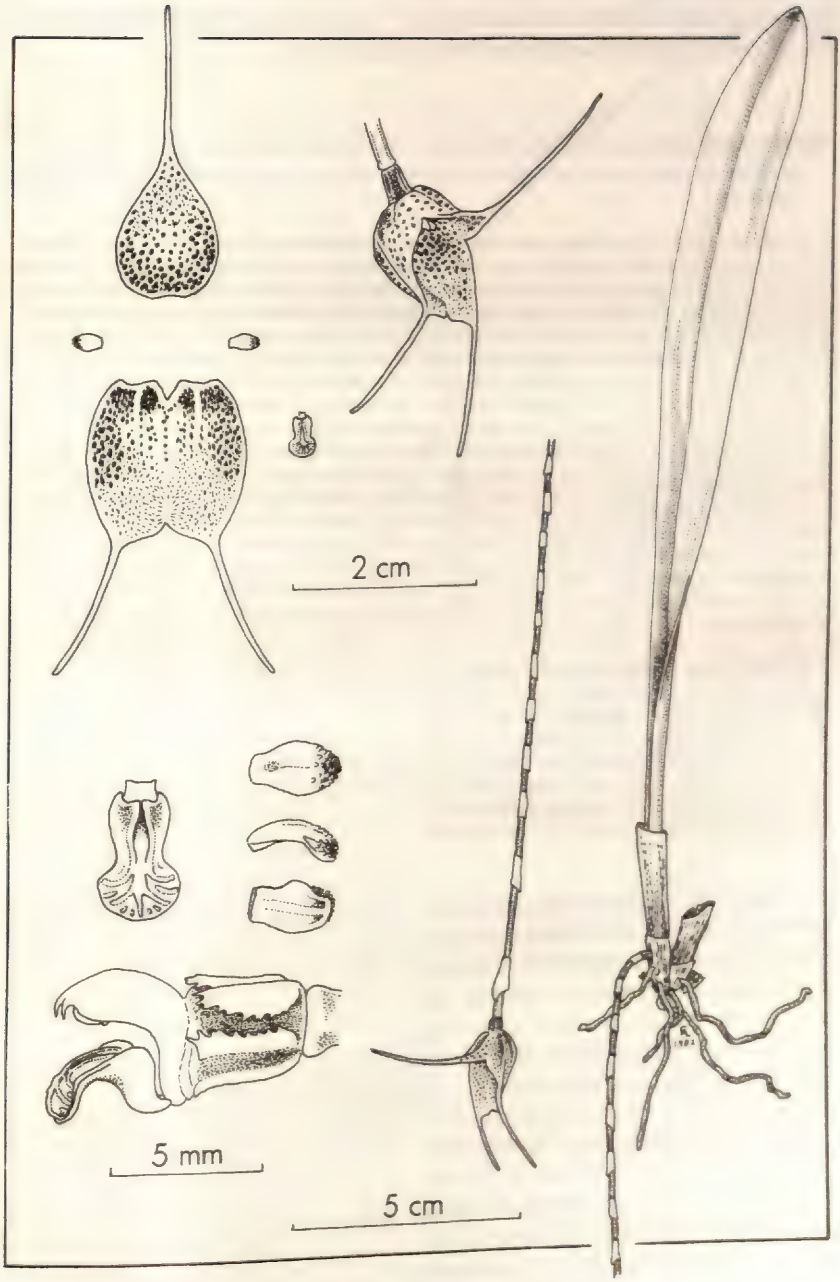


Plate 96. *Dracula venosa* (Rolfe) Luer

slender, descending, one-flowered peduncles. Often numerous flowers are produced simultaneously. The ovaries are crested. The sepals are connate into a rose-colored cup with tails about the same length. The minute, red lip is subpandurate with the convex epichile barely wider than the hypochile.

Dracula verticulosa Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1010, 1989.

Ety.: From the Latin *verticulosus*, "full of little peaks," referring to the lamellae within the epichile of the lip.

Plant large, epiphytic, caespitose; roots fleshy, coarse. Ramicauls erect, stout, 4-6 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly elliptical, acute, 20-30 cm long, 2.5-3.5 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme borne by a stout, erect peduncle 15-20 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 15-17 mm long; pedicels 20-25 mm long; ovary 5-6 mm long, round in cross-section; **sepals** densely short-pubescent within, light greenish brown or olive (or off-white) above the middle, suffused with light yellow-brown below the middle, suffused with purple-brown externally, the dorsal sepal suborbicular, 22 mm long, 23 mm wide, connate to the lateral sepals for 11 mm to form a cupped flower, the apex rounded, abruptly contracted into a slender, erect, dark purple-brown tail 7 cm long, the lateral sepals broadly ovate, oblique, 22 mm long, connate 20 mm into a broad lamina 32 mm wide, with a deep mentum, the apices obtuse to rounded, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong-ovate, 3 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate; **lip** pink, panduriform, 11 mm long, 6 mm wide, the epichile ovoid, concave with the margins not incurved, 8 mm long, 6 mm wide, filled with several tall, incomplete, irregular lamellae, the hypochile oblong, 3 mm long, 3 mm wide, with erect, obtuse, marginal angles, cleft centrally, the concave base flexibly hinged to the column-foot; **column** light yellow, semiterete, 4 mm long, with a stout foot equally long.

COLOMBIA: Dept. of Valle del Cauca: epiphytic in forest between Costa Rica and Ginebra, alt. 1800-1900 m, collected by J. Miranda, Jr., Jan. 1988, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *R. Escobar 4000* (Holotype: JAUM; Isotype: MO), C. Luer illustr. 13011; same locality, collected by J. L. Aguirre, Oct. 1989, flowered in cultivation at Colomborquídeas, 11 Dec. 1989, *R. Escobar 4039* (JAUM).

This recently discovered species is apparently endemic in southern Colombia where it grows with another similar, recently discovered species, *D. aphrodes*. In habit, both species are characterized by long, narrow leaves and more or less erect inflorescences that bear large flowers.

The slightly cupped flowers of *D. verticulosa* are distinguished by the rounded sepals, a deep mentum, and long, slender tails. Pubescent within, the sepals are suffused with purple-brown externally and below the middle within. The slightly concave epichile of the lip is filled with tall, incomplete and irregular lamellae. A profile of the lamellae suggests a miniature landscape of the mountains near Guilin along the Li River in China.

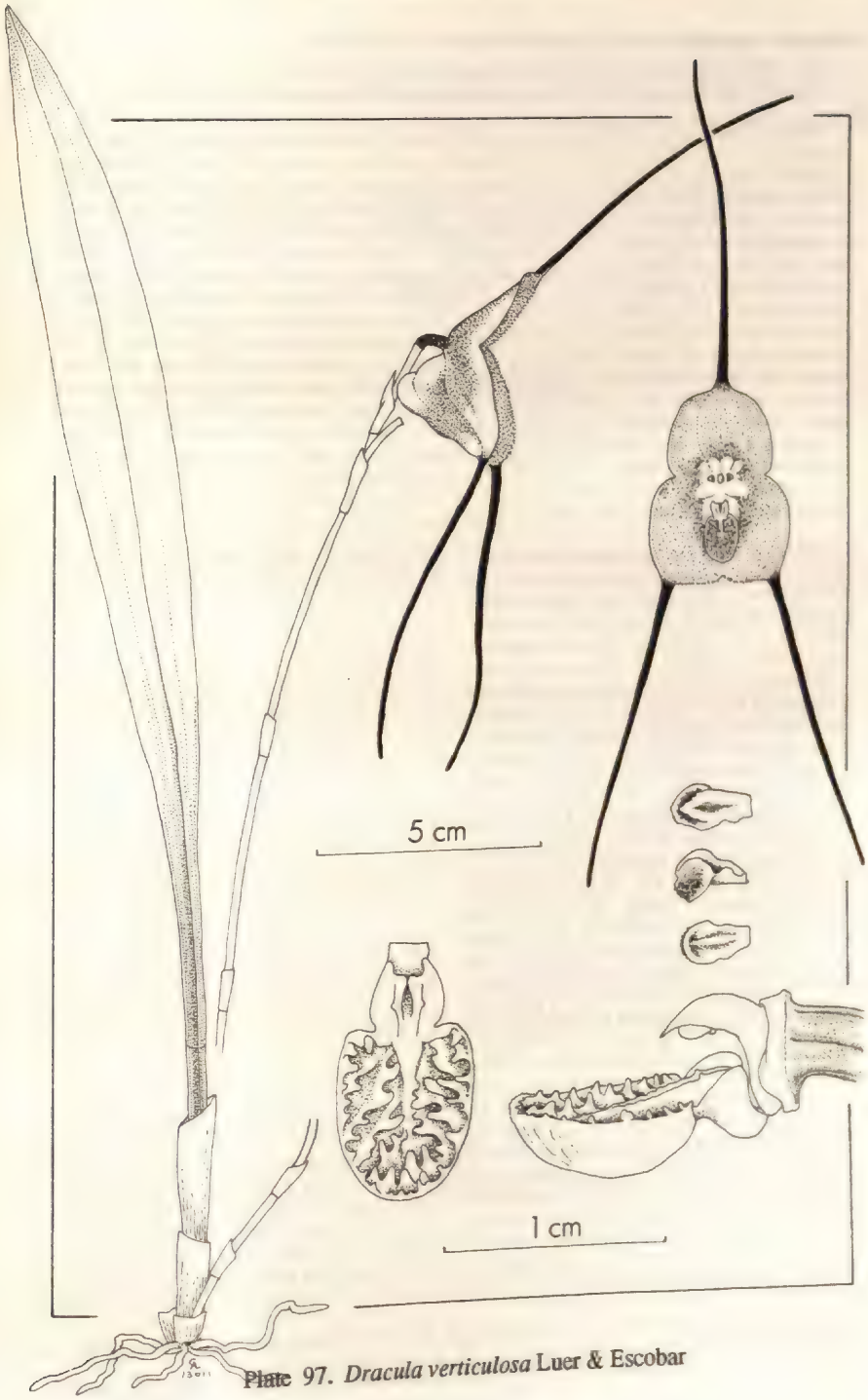


Plate 97. *Dracula verticulosa* Luer & Escobar

Dracula vespertilio (Rchb.f.) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia vespertilio* Rchb.f., Bot. Zeitung (Berlin) 31: 390, 1873.

Ety.: From the Latin *vespertilio*, "a bat," in allusion to the fancied appearance of the flower.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 2-3 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 10-20 cm long including the petiole 3-5 cm long, the blade narrowly elliptical, acute, 1.5-2 cm wide, the base gradually narrowed into the channeled petiole. **Inflorescence** a single flower, occasionally followed by a second flower, borne by a purple, horizontal to descending, slender, multibracted peduncle 8-10 cm long, from low on the ramicaul; floral bract tubular, 6-10 mm long; pedicel 7 mm long; ovary purple, 5 mm long, 4 mm wide, with 6 green, denticulate crests; **sepals** pale yellow, irregularly dotted with purple, shortly spiculate-pubescent within, the dorsal sepal triangular, 15-20 mm long, 12-18 mm wide, connate to the lateral sepals for 6 mm to form a widely spread, flat flower, the apex acute, contracted into a slender, erect, yellow tail 2-6.5 cm long, the lateral sepals obliquely ovate-triangular, obtuse, 15-25 mm long, 13-22 mm wide, connate 11-17 mm into a transversely oblong lamina with a broad, shallow mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** cream, marked with purple, cartilaginous, oblong, 4-5 mm long, 1.75-2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina shorter and denticulate; **lip** white with pink dots on the hypochile, spathulate, 7-9 mm long, 5-8 mm wide, the epichile transversely elliptical, 5 mm long, 8 mm wide, the sides smooth, rounded and incurved, completely smooth within, the hypochile oblong, 4 mm long, 3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** cream, semiterete, 5 mm long, with a stout foot 3 mm long.

COLOMBIA: Dept. of Antioquia: Frontino, *G. Wallis s.n.* (Holotype: W); Frontino, alt. 2000 m, 23 Oct. 1884, *F. C. Lehmann 4305* (G). Dept. of Cauca: highlands of Popayán, Río Ortega, alt. 1300-1600 m, Oct. 1885, *F. C. Lehmann 6749* (K, M); near Popayán, Vereda La Capilla, alt. 1750 m, collected by A. Lehmann de Sarria, 1978, flowered in cultivation in Popayán, 2 Feb. 1979, *R. Escobar 1925* (JAUM). Dept. of Chocó: Vereda Guangarales, Quebreda La Fragua, alt. 1900-2000 m, collected by E. Segura, 28 Apr. 1975, flowered in cultivation by M. & O. Robledo at La Ceja, 23 Aug. 1975, *R. Escobar 1631* (JAUM); flowered in cultivation 25 Sept. 1977, *C. Luer 1838* (SEL). Dept. of Nariño: San Pablo, Pususquer, western slopes of Volcán Arzufral, alt. 1400-2000 m, 6 Mar. 1880, *F. C. Lehmann 146* (G); Munic. of Ricaurte, La Planada, alt. 1850 m, 24 Feb. 1979, *R. Escobar, D. Portillo & O. de Benavidas 1946* (JAUM); above abandoned Magnesium mine east of Ricaurte, alt. 1800 m, 1 Nov. 1979, *C. Luer, J. Luer & A. Hirtz 4521* (SEL). Dept. of Risaralda: Munic. of Pueblo Rico, Alto de La Linea, alt. 2000-2100 m, collected by J. M. Sema, 1973, flowered in cultivation by Colomborquídeas, 10 Apr. 1988, *C. Luer 13167* (MO). Dept. of Valle del Cauca: Serrania de Belalcazar, alt. 1800-2000 m, 28 Aug. 1884, *F. C. Lehmann 4140* (G); Cordillera de Belalcazar near Anserma Vieja, alt. 1200-1800 m, *F. C. Lehmann 7215* (G, K).

ECUADOR: Prov. of Carchi: epiphytic in forest above Maldonado, collected by A. Andreetta and A. Hirtz, flowered in cultivation by A. Andreetta in Cuenca, 18 Aug. 1978, *A. Andreetta 15* (SEL); between Maldonado and Chical, alt. 1400 m, 17 Mar. 1991, *C. Luer, J. Luer, A. Hirtz, X. Hirtz & J. Del Hierro 15110* (MO). Prov. of Imbabura: Selva Alegre, alt. 1730 m, 2 May 1981, *C. Luer, J. Luer & A. Hirtz 6071* (SEL); above Río Los Cedros, alt. 1200 m, 20 Jan. 1993, *S. Dalström, T. Höijer & H. Wanntorp 1699* (MO). Prov. of Pichincha: above Mindo, alt. ca. 1900 m, collected by W. Teague & D. Welisch, July 1975, flowered in cultivation by M. & O. Robledo at La Ceja, Colombia, 11 Nov. 1980, *R. Escobar s.n.* (JAUM).

COSTA RICA: Prov. of Alajuela: *A. Endres 419* (CR, W): Prov. of Puntarenas: between Monte Carlo and Quizarrá, flowered in cultivation in Gainsville, FL, *R. L. Dressler s.n.* (MO).

NICARAGUA: Prov. of Matagalpa: junction of Bavaria and Santa Cecilia roads, alt. 1300 m, *A. Heller s.n.* (SEL).

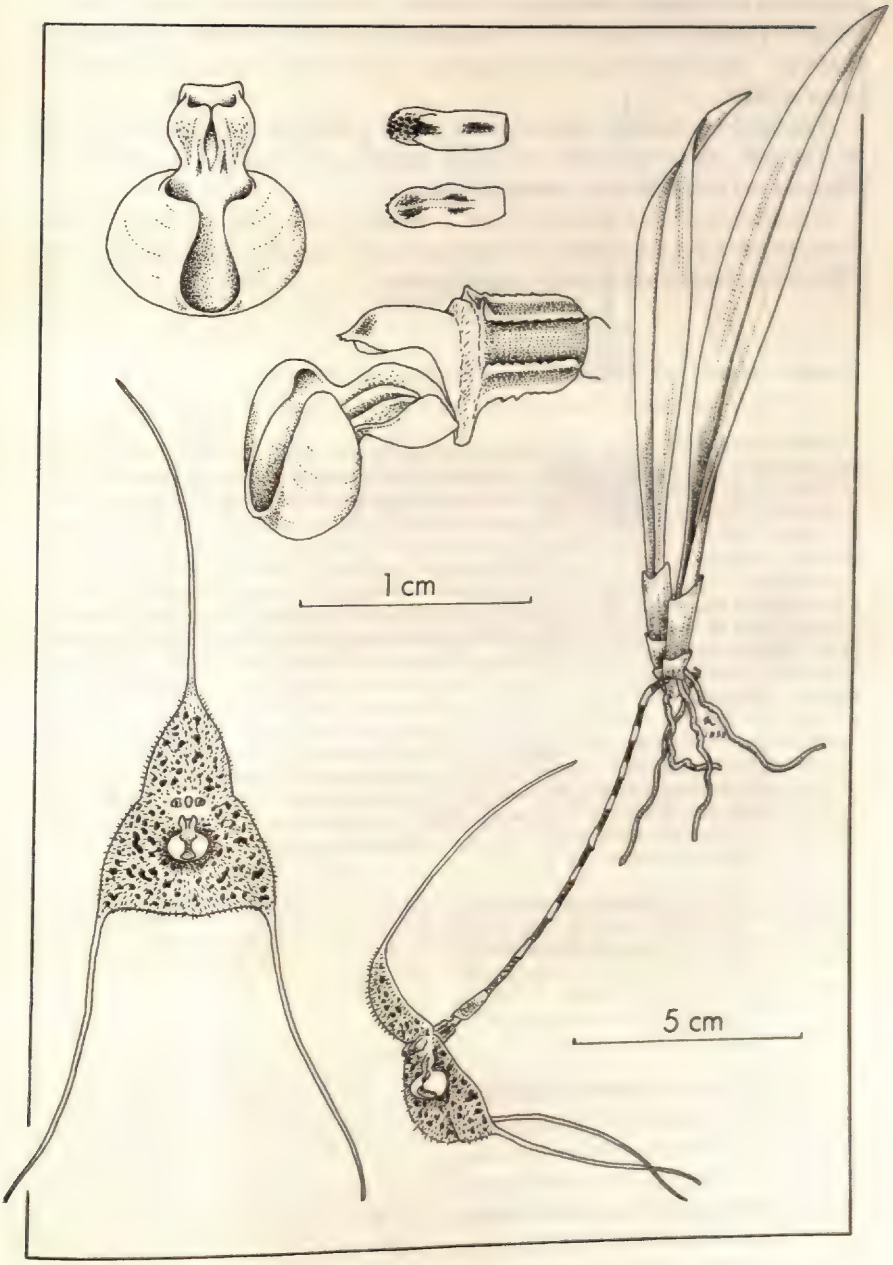


Plate 98. *Dracula vespertilio* (Rchb.f.) Luer

Masdevallia vespertilio was the third species of the genus *Dracula* to be described by Reichenbach, a specimen having been sent to him by Wallis from near Frontino in the Western Cordillera of Colombia. The first living plants to be received in Europe were sent by F. C. Lehmann from the department of Cauca in Colombia. They flowered in the collection of Sir Trevor Lawrence at Burford Lodge in 1877.

This relatively frequent species has the widest geographical distribution of all the Draculas, occurring locally in Central America, the Western Cordillera of Colombia and both sides of the Andes in Ecuador.

Dracula vespertilio is similar to both *D. janetiae* from Peru and *D. nycterina* from Colombia, but it is readily distinguished by the transverse epichile of the lip with involute sides, which is totally smooth within.

Dracula vinacea Luer & Escobar, Orquideología 13: 39, 1978.

Ety.: From the Latin *vinaceus*, "wine-colored," in reference to the interior color of the sepals.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicauls erect, slender, 3-7 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, very narrowly elliptical-linear, acute, 15-37 cm long 1-1.8 cm wide, gradually narrowed below to the conduplicate, indistinctly petiolate base. **Inflorescence** a lax, successively several-flowered raceme up to 8 cm long, borne by a slender, horizontal to descending, sparsely bracted peduncle 10-18 cm long, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 10-15 mm long; ovary 4.5 mm long, round in cross-section; **sepals** light purple externally, verrucose-spiculate and intensely dotted with dark purple obscuring a pale background color within, the dorsal sepal transversely ovate, 9 mm long, 15 mm wide, connate to the lateral sepals for 5 mm to form a gaping, shallow, sepaline cup, the apex rounded, abruptly contracted into a slender, erect, red-purple tail 5.5 cm long, the lateral sepals broadly ovate, oblique, 13 mm long, 12 mm wide, connate 10 mm to form a mentum, the obtuse apices contracted into tails similar to that of the dorsal sepal; **petals** white, marked with brown, cartilaginous, oblong, 3 mm long, 1.5 mm wide, the apex bivalvate, densely verrucose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded, revolute; **lip** pale rose, suffused with purple, spathulate, 5 mm long, 4 mm wide, the epichile transversely elliptical, concave with smooth, involute margins, 2.5 mm long, 4 mm wide, concave with erect, denticulate margins, the concavity with a central keel and 1-2 fragments on either side, the hypochile oblong, 2.5 mm long, 2.25 mm wide, with erect, narrowly rounded marginal angles, cleft centrally, the concave base hinged to the column-foot; **column** greenish white, stout, semiterete, 4 mm long, with a stout foot 3 mm long.

COLOMBIA: without collection data, flowered in cultivation by M. & O. Robledo at La Ceja, 25 Sept. 1977, *R. Escobar 968* (Holotype: JAUM; Isotype: SEL), C. Luer illustr. 1837. Dept. of Boyacá: Río Pomeca near Arcabuco, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13129* (MO).

This species is apparently endemic in the Eastern Cordillera of Colombia where it is known from only one wooded valley. It is identified by the long, slender leaves, and the rather small, dark purple, campanulate but gaping flowers with long, slender, maroon tails. The hypochile of the pink lip is transversely elliptical with smooth, incurved margins. Within the cavity is one thick, central carina flanked by one or two fragments of veins.

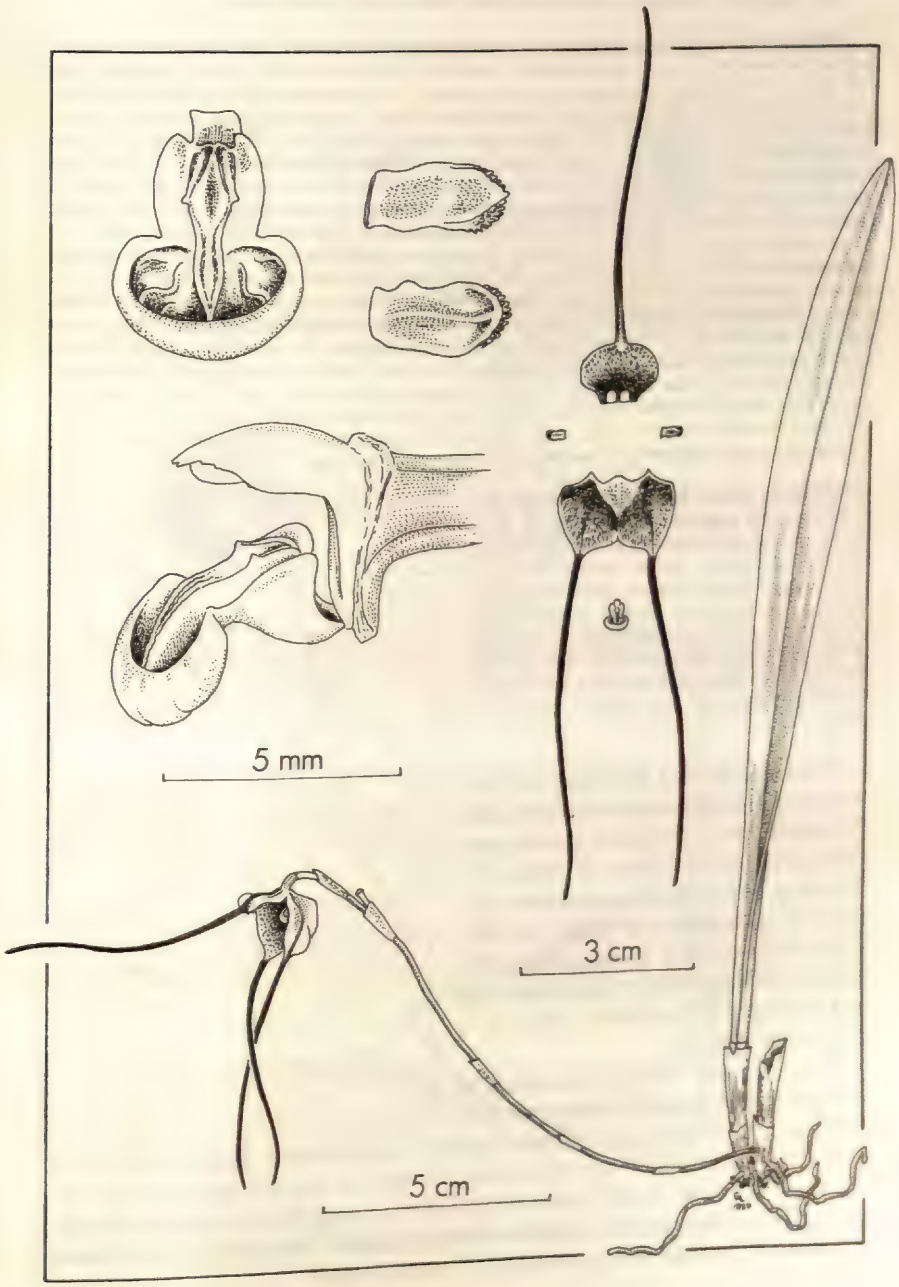


Plate 99. *Dracula vinacea* Luer & Escobar

Dracula vlad-tepes Luer & Escobar, Orquideología 15: 43, 1981.

Ety.: Named for Vlad Tepes, the sinister, medieval Transylvanian Count Dracula.

Plant medium-sized to large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, narrowly obovate, acute, 12-20 cm long including an indistinct petiole, 1.5-2.5 cm wide, gradually narrowed below into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively few-flowered raceme, borne by a stout, sparsely bracted, horizontal to descending peduncle 9-12 cm long, from low on the ramicaul; floral bract, tubular, 10-12 mm long; pedicel 15-18 mm long; ovary dark purple, 7-8 mm long, round in cross-section; **sepals** glabrous and suffused with purple on cream externally, internally diffusely pubescent, light yellow along the margins, sometimes including all the outer third, purple-black on the inner two-thirds, broadly ovate to suborbicular with rounded apices, the dorsal sepal 15-18 mm long, 20-25 mm wide, connate to the lateral sepals for 8-9 mm to form a widely spread flower, the apex abruptly contracted into a slender, erect, purple-black tail 5-8.5 cm long, the lateral sepals 20-22 mm long, 21-23 mm wide, connate 15 mm to form a broad, deep mentum, the apices contracted into slender tails similar to that of the dorsal sepal; **petals** yellow, marked with dark purple, cartilaginous, elliptical-oblong, 4 mm long, 2.25 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina acute, denticulate, the outer lamina rounded; **lip** pink, spathulate, 8 mm long, 7 mm wide, the epichile transversely elliptical, 4 mm long, 7 mm wide, deeply concave with incurved, denticulate margins, coursed within by about 9 more or less incomplete, radiating, elevated veins, the hypochile oblong, 4 mm long, 4 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, hinged to the column-foot; **column** white, stout, semiterete, 5.5 mm long, with a stout foot 3 mm long.

COLOMBIA: without locality, obtained by J & L Orchids from H. Schmidt-Mumm of Bogotá, flowered in cultivation in Easton, CT., 12 Nov. 1977, *C. Luer 2180* (Holotype: JAUM; Isotype: SEL); obtained from H. Schmidt-Mumm, flowered in cultivation at La Ceja by M. & O. Robledo, 28 Jan. 1979, *R. Escobar 1913, 1914* (JAUM); Dept. of Santander: Munic. of Virolin, El Taladro, alt. 2500 m, 1987, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 10 Apr. 1988, *C. Luer 13143* (MO).

This species was described in 1981 from a plant obtained from Helmuth Schmidt-Mumm of Bogotá, Colombia, and cultivated by J & L Orchids at Easton, CT. The plant was assumed to have been collected in the Eastern Cordillera. In 1987, it was discovered in quantity in the department of Santander in the northern part of the Eastern Cordillera, where it is apparently endemic.

The size and color of the sepals of *Dracula vlad-tepes* are reminiscent of *D. radiosa*, but a broad, pale marginal zone of varying widths surrounds the dark center. The flower of *D. vlad-tepes* is not as cupped as that of *D. radiosa*. The lips are about the same in size, but the epichile of *D. vlad-tepes* contains multiple, incomplete, radiating veins ending in a toothed margin. The epichile of *D. radiosa* contains tall, radiating lamellae ending in a smooth margin.

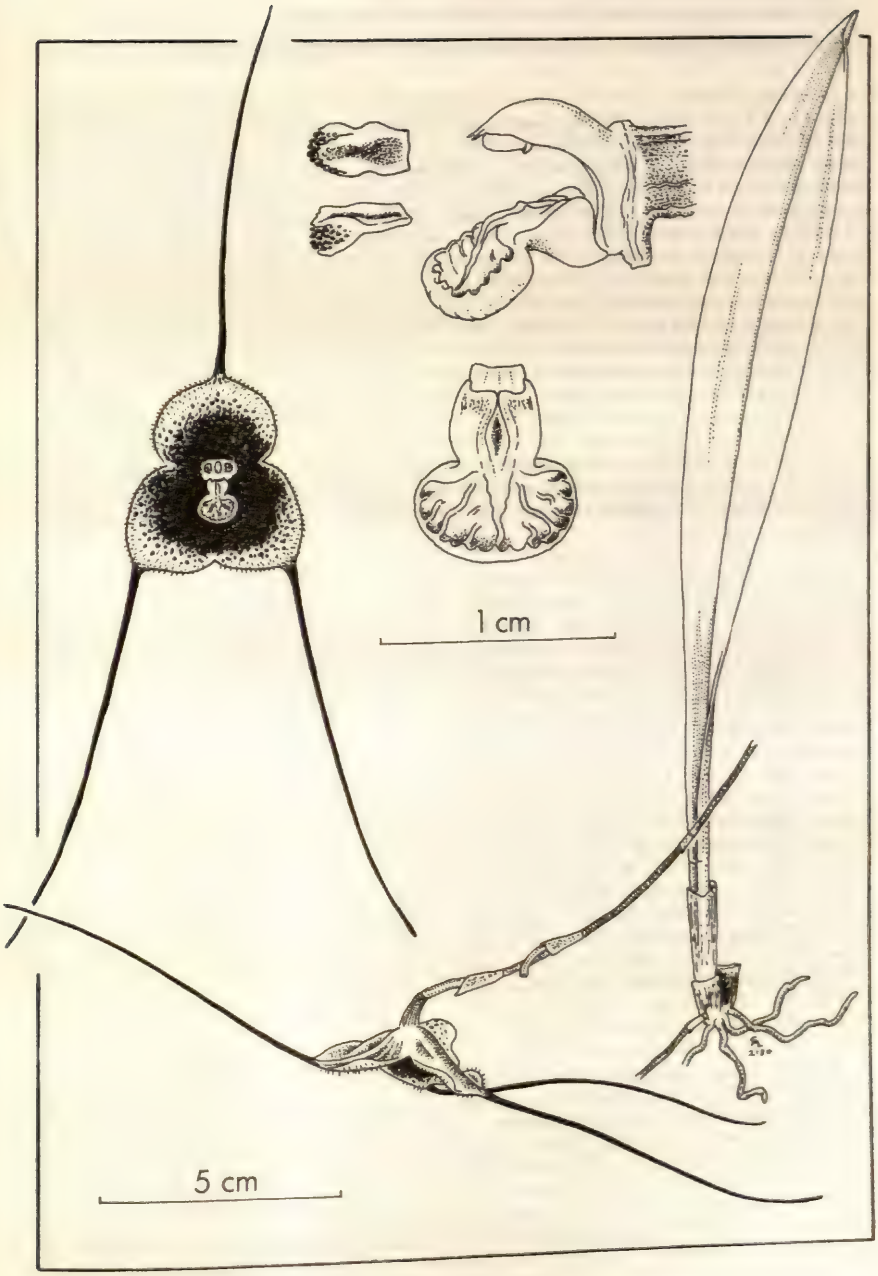


Plate 100. *Dracula vlad-tepes* Luer & Escobar

Dracula wallisii (Rchb. f.) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia wallisii* Rchb. f., Gard. Chron. 2: 258, 1875.

Ety.: Named in honor of Gustav Wallis who first discovered this species.

Syn.: *Masdevallia chimaera* var. *wallisii* (Rchb.f.) Veitch, Man. Orch. Pl. 5: 31, 1889.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-5.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, subplicate, carinate, elliptical, acute, 15-27 cm long including an indistinct petiole 3-5 cm long, 2.5-4.5 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 10 cm long of showy flowers, borne by a stout, horizontal to descending peduncle 12-25 cm long, from low on the ramicaul; floral bract, tubular, 10-20 mm long; pedicel 15-27 mm long; ovary 6-8 mm long, subverrucose, round in cross-section; **sepals** basic color white, or yellow, diffusely or irregularly spotted with purple or brown, coarsely pubescent within, the dorsal sepal ovate, 2.5-4 cm long, 1.6-2.8 cm wide, connate to the lateral sepals for 6-9 mm to form a flat, widely spread flower, the apex subacute to obtuse, contracted into a slender, erect, dark purple tail 6-11 cm long, the lateral sepals ovate, oblique, 2.5-4.5 cm long, 2-2.7 cm wide, connate 10-25 mm to form a broad, shallow mentum, the subacute apices acuminate into slender tails similar to that of the dorsal sepal; **petals** white or ivory, marked with purple or brown, cartilaginous, oblong-obovate, 3.5 mm long, 2 mm wide, the apex rounded, bivalvate, papillose between the laminae, the inner lamina denticulate, the outer lamina recurved; **lip** white, suffused with yellow or rose, spathulate, 12-18 mm long, 7-9.5 mm wide, the epichile oblong-suborbicular, concave, 7-9 mm long, 7-9.5 mm wide, with the margins involute and toothed, with 3 primary lamellae and multiple, radiating, branching, elevated veins within, the hypochile oblong, 3-4 mm long, 3-3.5 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, flexibly hinged to the column-foot; **column** yellowish white, stout, semiterete, 4-5 mm long, with a stout foot 4 mm long.

COLOMBIA: Dept. of Antioquia: near Frontino, 1871, *G. Wallis s.n.*(Holotype: W); without locality, *Shuttleworth s.n.* (W); without locality, *Patin s.n.* (W). Dept. of Antioquia: Munic. of Argelia: La Florida, collector unknown, flowered in cultivation by M. & O. Robledo at La Ceja, Feb. 1975, *R. Escobar 1471* (JAUM); Munic. of Guatapé: El Picacho, 1973, collected by J. M. Serna, flowered in cultivation by M. & O. Robledo at La Ceja, 1974, *R. Escobar 1408* (JAUM); Munic. of San Carlos: La Ermita, alt. ca. 1600 m, collected by J. M. Serna, flowered in cultivation by A. Mejia, Dec. 1972, *R. Escobar 907* (JAUM); alto de La Miranda, alt. ca. 1900 m, 1974, collected by J. M. Serna, flowered in cultivation by O. J. Arango at La Estrella, Feb. 1975, *R. Escobar 1464* (JAUM); Munic. of San Luis: Piedra del Castillo, alt. ca. 1600 m, collected by J. M. Serna, flowered in cultivation by A. Mejia, June 1972, *R. Escobar 465* (JAUM); vereda Chocó, alt. 1600 m, Aug. 1985, collected by E. Valencia, flowered in cultivation at Colomborquídeas, 28 Apr. 1983, *C. Luer 8847* (SEL); flowered in cultivation, 10 Apr. 1988, *C. Luer 13125* (MO); Munic. of Santo Domingo: alt. 1900 m, collected by E. Valencia, July 1986, flowered in cultivation at Colomborquídeas, 18 Mar. 1989, *C. Luer 14259* (MO); Munic. of Santuario: Las Brisas, collected by J. M. Serna, 1973, flowered in cultivation by M. & O. Robledo at La Ceja, 1974, *R. Escobar 1397* (JAUM); flowered in cultivation, 21 July 1978, *C. Luer 2940* (SEL). Dept. of Cauca: Cerro Munchique, alt. 2700-2800 m, 2 Mar. 1884, *F. C. Lehmann 3607* (G, BR, BM). Dept. of Chocó: Munic. San José del Palmar, alt. ca. 2000 m, Aug. 1983, collected by J. & J. Posada, M. de Robledo & E. Stewart, flowered in cultivation at Colomborquídeas, Mar. 1988, *R. Escobar s.n.* (JAUM).

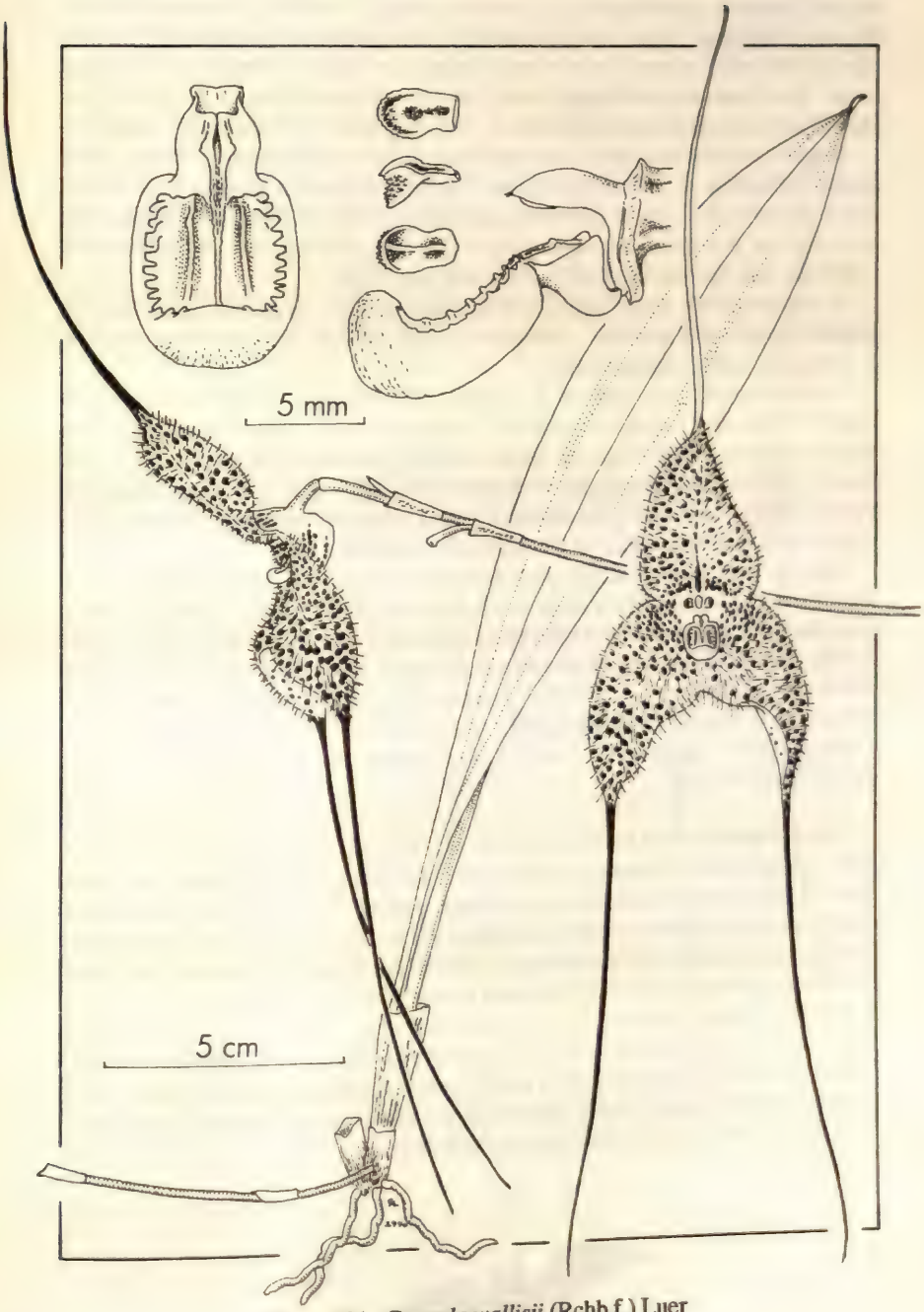


Plate 101. *Dracula wallisii* (Rchb.f.) Luer

This rather frequent, variable species, widely distributed in the Central Cordillera of Colombia, is similar to *D. chimaera* which is widely distributed in the Western Cordillera. It has been assigned by many authors to varieties of *D. chimaera*. Confusion between the two was even greater then (Reichenbach, 1875) than today. The illustration published in the Gardners' Chronicle 4: 41, t. 5, 1875, as *Masdevallia chimaera* is *Dracula wallisii*. See discussion of *D. chimaera*, page 54.

Dracula wallisii was reported to have been discovered by Gustav Wallis in the region of Frontino in 1872 in the Western Cordillera, but this locality is in doubt. Plants mixed with *D. nycterina* were exported to Linden in Brussels. Neither *D. nycterina* nor *D. wallisii* are known today from the northern part of the Western Cordillera. See the discussion of *D. nycterina*, page 148.

In common with most widely distributed species of *Dracula*, *D. wallisii* is variable in size and coloration. Related taxa from Ecuador have been described as *D. chiroptera* and *D. woolwardiae*.

Most commonly, the sepals of *D. wallisii* are yellowish, variously spotted with purplish brown, and coarsely pubescent. The apices of the sepals of most plants are shorter and more obtuse than the longer, tapering apices of the sepals of *D. chimaera*. This shape of the sepals was used by Reichenbach in distinguishing *D. wallisii* from *D. chimaera*. Reichenbach's only other distinguishing feature of *D. wallisii* was a narrower leaf, a totally unreliable criterion.

The lip, with a more or less suborbicular epichile with involute margins, is flexibly hinged to the column-foot, which, in living plants, readily distinguishes it from the lip of *D. chimaera* which stands immobly erect from the center of the flower. Reichenbach may never have been aware of this difference. He never mentioned it. Although the involute margin of the apex of the lip is not usually inflated in *D. wallisii*, it is frequently curved upward, suggesting the inflated, scaphoid apex of the lip of *D. chimaera*. Reichenbach did not distinguish between the lips of the two taxa.

Many plants of many forms of *D. chimaera* and *D. wallisii* are cultivated in the open greenhouses at Colomborquídeas near Medellín, Colombia, along with hundreds of other plants that include all the other species. Without doubt, all kinds of combinations of hybrids occur when plants are pollinated randomly by the tiny, fruit flies that frequent the greenhouses. One of the three more attractive of these spontaneous, unnamed hybrids illustrated in this publication is found on Plate 102. It has been called *Dracula* "X 5" (Luer & Escobar, 1989). One of the parents appears to be either *D. chimera* or *D. wallisii*, and the other parent could be *D. bella*. This hybrid appears to be a more likely candidate for an offspring of this parentage than *D. pileus*, which appeared as a seedling among collected plants of *D. bella* and *D. chimaera* cultivated in a common bed.

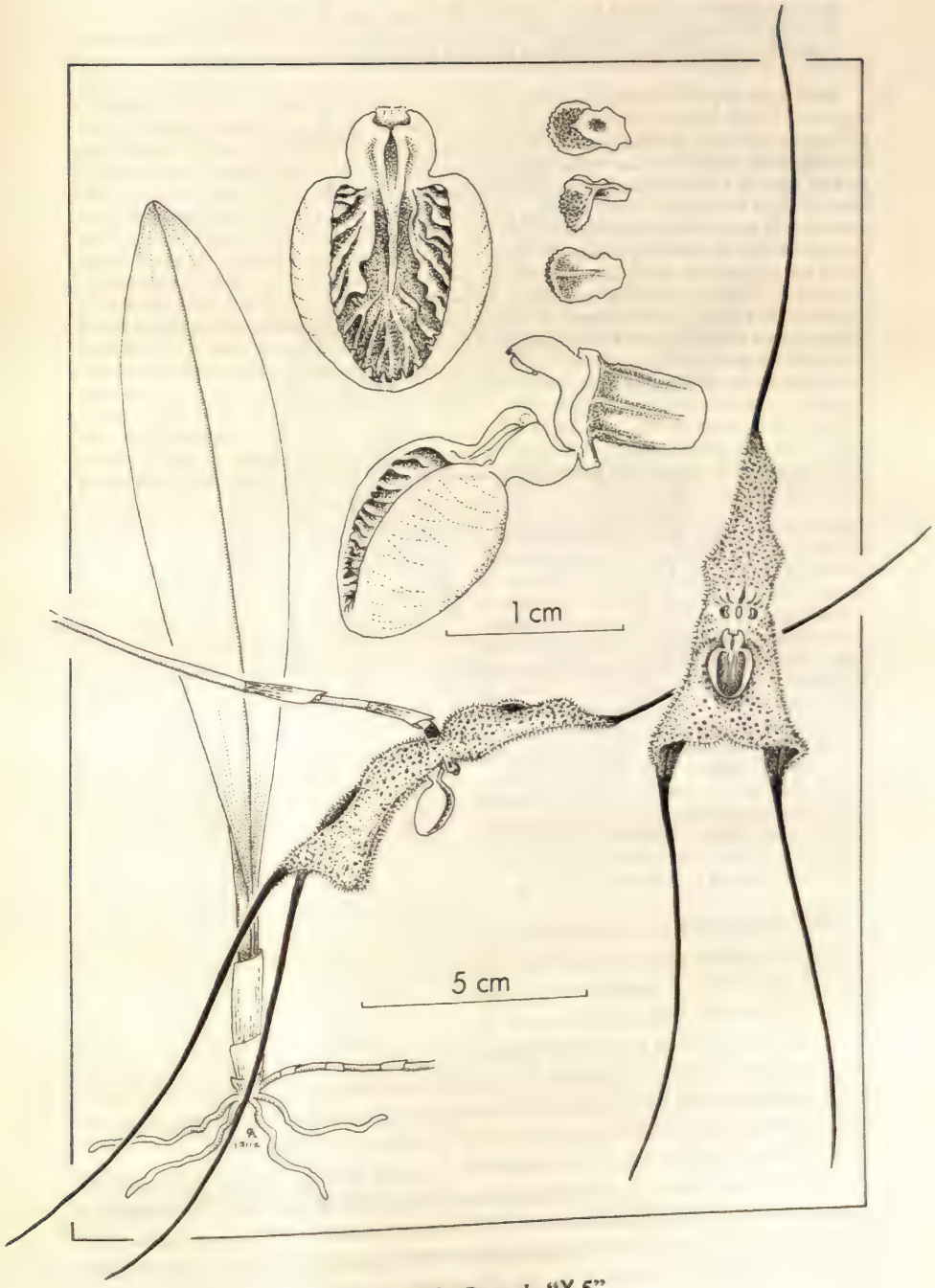


Plate 102. *Dracula* "X 5"

Dracula woolwardiae (Lehm. & Kränzl.) Luer, Selbyana 2: 198, 1978.

Bas.: *Masdevallia woolwardiae* Lehm. ex Kränzl., Bot. Jahrb. Syst. 26: 452, 1899.

Ety.: Named in honor of Miss Florence Woolward, who produced an elephant-folio monograph of the genus *Masdevallia* between 1890 and 1896 with life-size, hand-colored lithographs.

Plant large, epiphytic, densely caespitose; roots coarse. Ramicauls stout, erect, 2-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, subplicate, carinate, elliptical, acute, 15-25 cm long including an indistinct petiole 3-5 cm long, 2.5-4 cm wide, the base narrowly cuneate into the conduplicate, subpetiolate base. **Inflorescence** a loose, successively several-flowered raceme up to 5 cm long, borne by a several-bracted, horizontal to descending peduncle 12-20 cm long, from low on the ramicaul; floral bract tubular, 10-13 mm long; pedicel 16-22 mm long; ovary 6-7 mm long, subverrucose, round in cross-section; **sepals** yellow, diffusely spotted with red-brown or purple-brown, long-pubescent within, the dorsal sepal ovate, 23-30 mm long, 16-22 mm wide, connate to the lateral sepals for 5-6 mm to form a flat, widely spread flower, the apex acute, contracted into a slender, dark purple-brown tail 5-5.5 cm long, the lateral sepals ovate, oblique, 25-35 mm long, 18-22 mm wide, connate 12-15 mm to form a broad, shallow mentum, the acute apices contracted into slender tails similar to that of the dorsal sepal; **petals** ivory, marked with purple-brown, cartilaginous, oblong-obovate, 3-3.5 mm long, 2 mm wide, the apex bivalvate, papillose between the laminae, the inner lamina subacute, denticulate, the outer lamina obtuse, recurved; **lip** white, suffused with yellow, spathulate, 11-12 mm long, 7-9 mm wide, the epichile suborbicular, concave, 7-8 mm long, 7-9 mm wide, with the margins involute and many-toothed, with 3 primary lamellae and multiple, branching, radiating, elevated veins within, the hypochile ovoid, 4 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the base concave, flexibly hinged to the column-foot; **column** yellowish white, stout, semiterete, 4 mm long, with a stout foot equally long.

ECUADOR: Prov. of El Oro: Cuesta de Chilla above Zaruma, alt. 1500-1700 m, *F. C. Lehmann 7003* (Holotype: K; Isotype: AMES); Cordillera de Ambocas above Zaruma, alt. 1450 m, collected by D. D'Alessandro, flowered in cultivation at Predesur, Vilcabamba, 17 Mar. 1984, *C. Luer 9590* (MO). Prov. of Bolívar: west of Salinas and La Palma, alt. 1250 m, 10 Mar. 1991, *C. Luer, J. Luer, A. Hirtz, X. Hirtz, J. Del Hierro, M. & F. Navarro 14978* (MO). Prov. of Cotopaxi: epiphytic in cloud forest remnant west of Corazón, alt. 1200 m, collected 18 Feb. 1979 by A. Hirtz, J. Luer & C. Luer, flowered in cultivation by Hirtz in Quito, 29 Apr. 1981, *C. Luer 6020* (SEL). Prov. of Imbabura: above Garcia Moreno, alt. 1850 m, 1 Mar. 1992, *S. Dalström et al. 1594* (MO); above Río Los Cedros, alt. 1700 m, 24 Jan. 1993, *S. Dalström, T. Höijer & H. Wanntorp 1767* (MO).

This species was first collected in the mountains above the vast gold mines around the village of Zaruma in the province of El Oro in southwestern Ecuador by F.C. Lehmann, German consul and mining engineer from Popayán, Colombia. The primary purpose of his journeys to Ecuador was to explore mines for minerals. His collections of orchids, now far more famous and important than his mineral records, were fortuitous by-products.

Dedicated to Miss Florence Woolward, *Dracula woolwardiae* is very closely allied to the variable and widely distributed Colombian *D. wallisii*. The sepals of both species are large, diffusely spotted and long-pibescent. *Dracula woolwardiae* is distinguished by the slightly smaller flower with more acute apices of the sepals, and a more delicate pubescence. The lips of the two taxa are also similar, but the lip of *D. woolwardiae* is more orbicular without the lateral margins being as involute. The lips of both species are mobile.

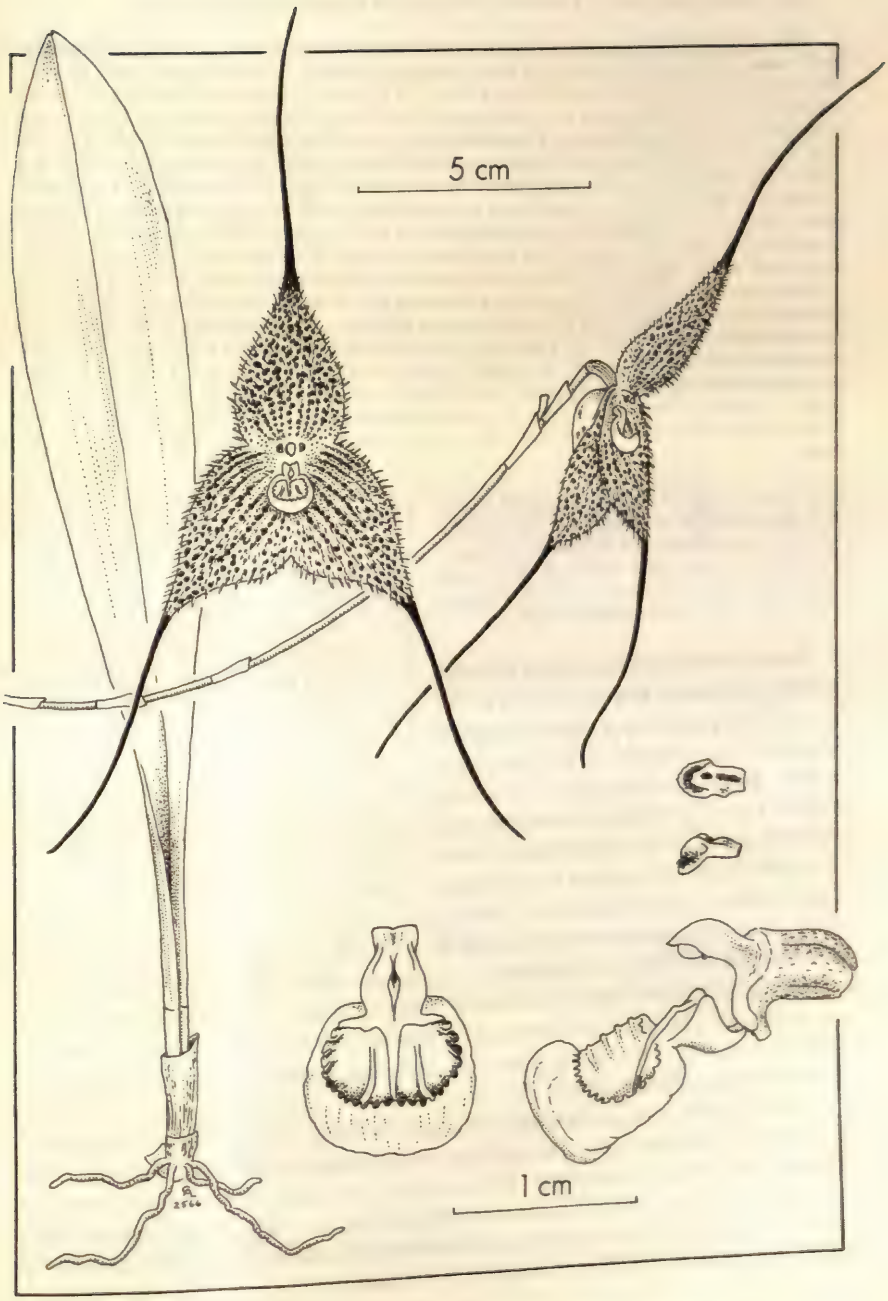


Plate 103. *Dracula woolwardiae* (Lehm. & Kränal.) Luer

Dracula xenos Luer & Escobar, Amer. Orchid Soc. Bull. 58: 1011, 1989.

Ety.: From the Greek *xenos*, "a stranger," referring to the unusual features of the species.

Plant small, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 1-1.5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thinly coriaceous, carinate, 7-10 cm long including an indistinct petiole 1-2 cm long, the blade elliptical, acute, 1-1.7 cm wide, gradually narrowed below into the conduplicate base. **Inflorescence** a lax, successively few-flowered raceme, borne by a slender, erect peduncle 9-11.5 cm long, with a few, distant bracts, from low on the ramicaul; floral bracts 9-10 mm long; pedicels 11-12 mm long; ovary verruculose, 3-4 mm long, round in cross-section; **sepals** light dull yellow with multiple red-brown warts within, the dorsal sepal elliptical, 18 mm long, 11 mm wide, connate to the lateral sepals for 3 mm to form a gaping flower, shallowly cupped at the base, the apex obtuse, contracted into a slender, erect, greenish brown tail 6-7 cm long, the lateral sepals ovate, oblique, 22 mm long, 11 mm wide, connate 5 mm into a shallow mentum, the apices subacute, contracted into slender tails similar to that of the dorsal sepal; **petals** white, marked with brown, oblong, 4 mm long, 1.25 mm wide, the apex acute without valves, with a small area of minute verrucosities near the apex on the inner surface, the middle third of the lower margin with a low, longitudinal callus; **lip** yellow, suffused with brown centrally, obovate, 8 mm long, 4 mm wide, slightly narrowed at an indistinct junction between the epichile and hupochile, the epichile elliptical, shallowly concave with 3 primary lamellae and several lateral branches, 4.5 mm long, 4 mm wide, the margins smooth, not incurved, the hypochile ovate, 3.5 mm long, 3 mm wide, with erect, rounded, marginal angles, cleft centrally, the concave base narrow, hinged to the column-foot; **column** light yellow, semiterete, 4 mm long, with a stout foot 2 mm long.

COLOMBIA: Dept. of Valle del Cauca: El Queremal, alt. ca. 2000 m, collected by J. Miranda, Jr., 1986, flowered in cultivation at Colomborquídeas, 6 Apr. 1988, *C. Luer 13012* (Holotype: MO); same collection, flowered in cultivation at Colomborquídeas, 2 Feb. 1991, *R. Escobar 4067* (JAUM).

Some unusual morphological features isolate this species from all others in the genus. The general appearance is that of *Masdevallia*, resembling *M. picturata* Rchb.f. most. The long-tailed, spreading sepals are only shallowly united, and covered within by tiny, red-brown warts. The petals are oblong and acute at the apex without any formation of valves. Only on the inner surface near the apex is a small zone of minute verrucosities.

Along the middle third of the labellar margin is a low, longitudinal callus. The lip is obovate without a clear demarcation between epichile and hypochile. The epichile is shallowly concave and filled with branching lamellae; the hypochile is cleft between erect, rounded sides.

Although the lip is unmistakably *Dracula*, the petals suggest that some genes of *Masdevallia* may have been introduced into this breeding population of plants in the distant past. Only a few plants, but certainly encompassing several clones, as manifested by the differing sizes and darker or lighter color of the flowers, have been discovered. All plants presently in cultivation were purchased from the collector by Dr. Rugelio Londoño of Medellín, Colombia.

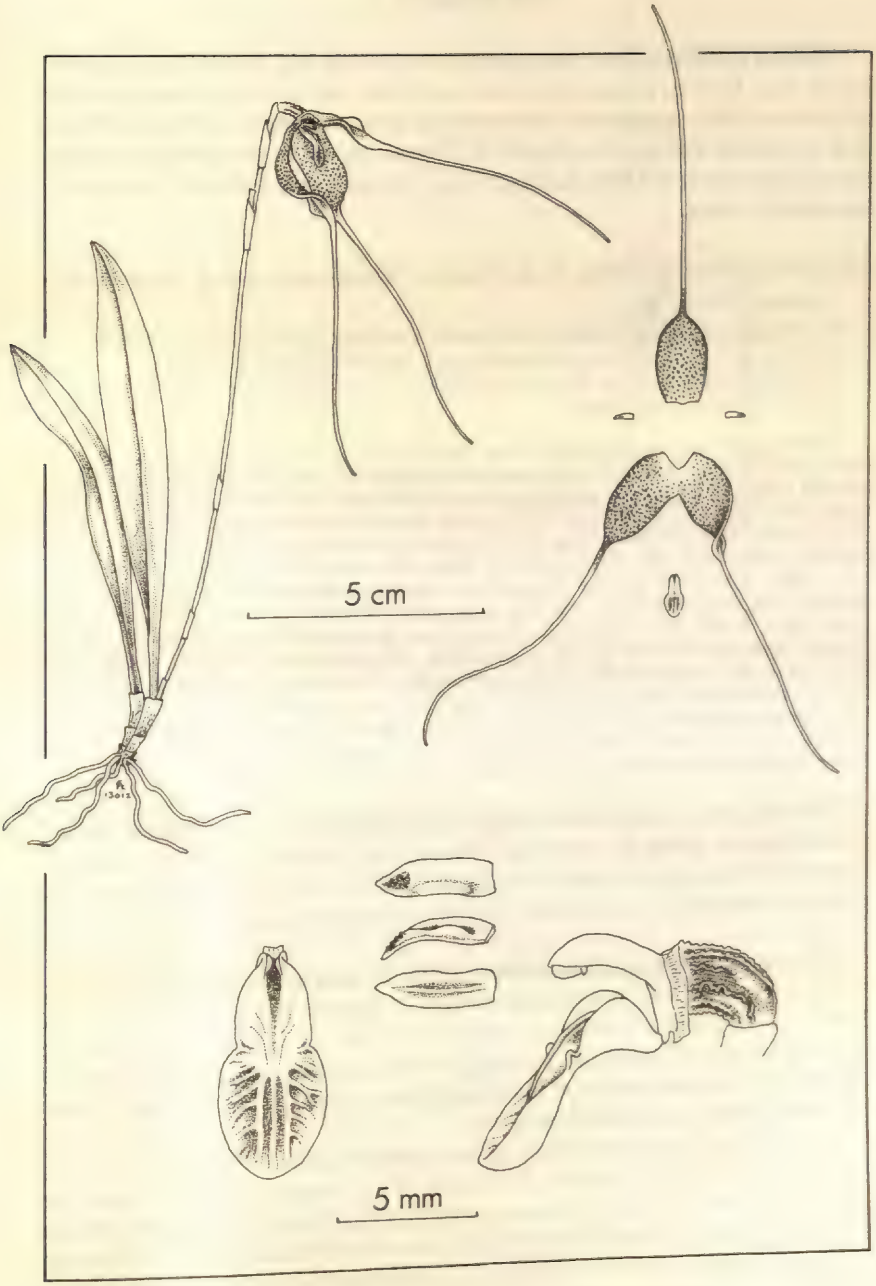


Plate 104. *Dracula xenos* Luer & Escobar

HYBRIDS

The first artificial hybrid with a species of *Dracula* was an intergeneric cross named 'Eric' between *Masdevallia tovarensis* Rchb.f. and *Dracula chimaera* made by Veitch in 1902. Apparently, this hybrid has not been remade. No other hybrid with a *Dracula* was registered until 1977 when the next intergeneric hybrid, X*Dracuvalia* Memoria Maria Arcila (*Dracula chimaera* X *Masdevallia veitchiana*, was made by Sanin.

XDracuvalia Memoria Maria Arcila (Sanin ex Richardson) Luer & Escobar, Selbyana 2: 191, 1978.

Bas.: X*Masdevallia* 'Memoria Maria Arcila' Sanin ex Richardson, Orquideología 12: 72, 1977.
Type: Art. hybr. of *Dracula chimaera* (Rchb.f.) Luer X *Masdevallia veitchiana* Rchb.f.
Ety.: Named in memory of Sra. Maria Arcila, mother of Dr. Carlos Sanin who created the cross.
Syn.: X*Masdevallia* 'Circe Stuartii.'

Plant medium in size, caespitose; roots coarse. Ramicauls erect, stout, 2-4 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, coriaceous, narrowly elliptical, acute, 8-12 cm long including an indistinct petiole, 1.8-2.2 cm wide, gradually narrowed below to the subpetiolate base. **Inflorescence** a showy flower, borne by a slender, erect 18-23 cm long, from low on the ramicaul; floral bract tubular, 18-22 mm long; pedicel 18-20 mm long; ovary 7-8 mm long; **sepals** bright orange, suffused with red centrally, glabrous externally, cellular-glandular within, the dorsal sepal ovate, 33 mm long, 25 mm wide, connate to the lateral sepals for 15 mm to form a conical, sepaline cup, the apex obtuse, abruptly contracted into an erect, slender tail 4 cm long, orange below, becoming green above; the lateral sepals ovate, oblique, 45 mm long, 24 mm wide, connate 20 mm, with a broad, shallow mentum, the apices subacute, contracted into slender tails 28 mm long; **petals** white, marked with red-brown, oblong, 7 mm long, 2.5 mm wide, the apex obtuse, minutely papillose on the inner surface, with a low, moooth callus abobe the base above the margin; **lip** orange, obovate, 11 mm long, 5 mm wide above the middle, obtuse, with an obscure constriction above the middle, the epichile shallowly concave with three carinae, the sulcate between a low pair of carinae, the base subcordate, hinged to the column-foot; **column** stout, semiterete, 6 mm long, with a stout foot 4 mm long.

The large, bright orange flower of this hybrid borne by an erect peduncle strongly resembles the parent *M. veitchiana*. The tails are relatively short; the petals are minutely papillose near the margin of the apex, and with a slight submarginal callus above the base; and the lip is obovate with the apical third tricallose.

The saga of the voluntary hybrids appearing in open greenhouses in Colombia (Luer & Escobar 1989) has been mentioned on page 6, and again on page 230. Three taxa suspected of being spontaneous hybrids (*D. circe*, *D. pileus* and *D. venefica*) are treated among the preceding species. The assumed parents of some of the other mysterious waifs that are unnamed seem more or less obvious, while others are obscure or impossible to guess.

Ten of these hybrids were pictured and simply numbered 1 through 10 in the *American Orchid Society Bulletin* 58: 981-986, 1989. Three of the more interesting and horticulturally desirable ones are illustrated on Plates 102, 106 and 107. A possible product of *D. wallisii* and *D. bella*, known as *Dracula* "X 5," is illustrated on plate 102. Most likely the product of *D. chestertonii* and *D. bella*, called *Dracula* "X 1," and possibly an offspring of *D. inaequalis* and a large species such as *D. wallisii*, called *Dracula* "X 3," are illustrated on the following two plates.

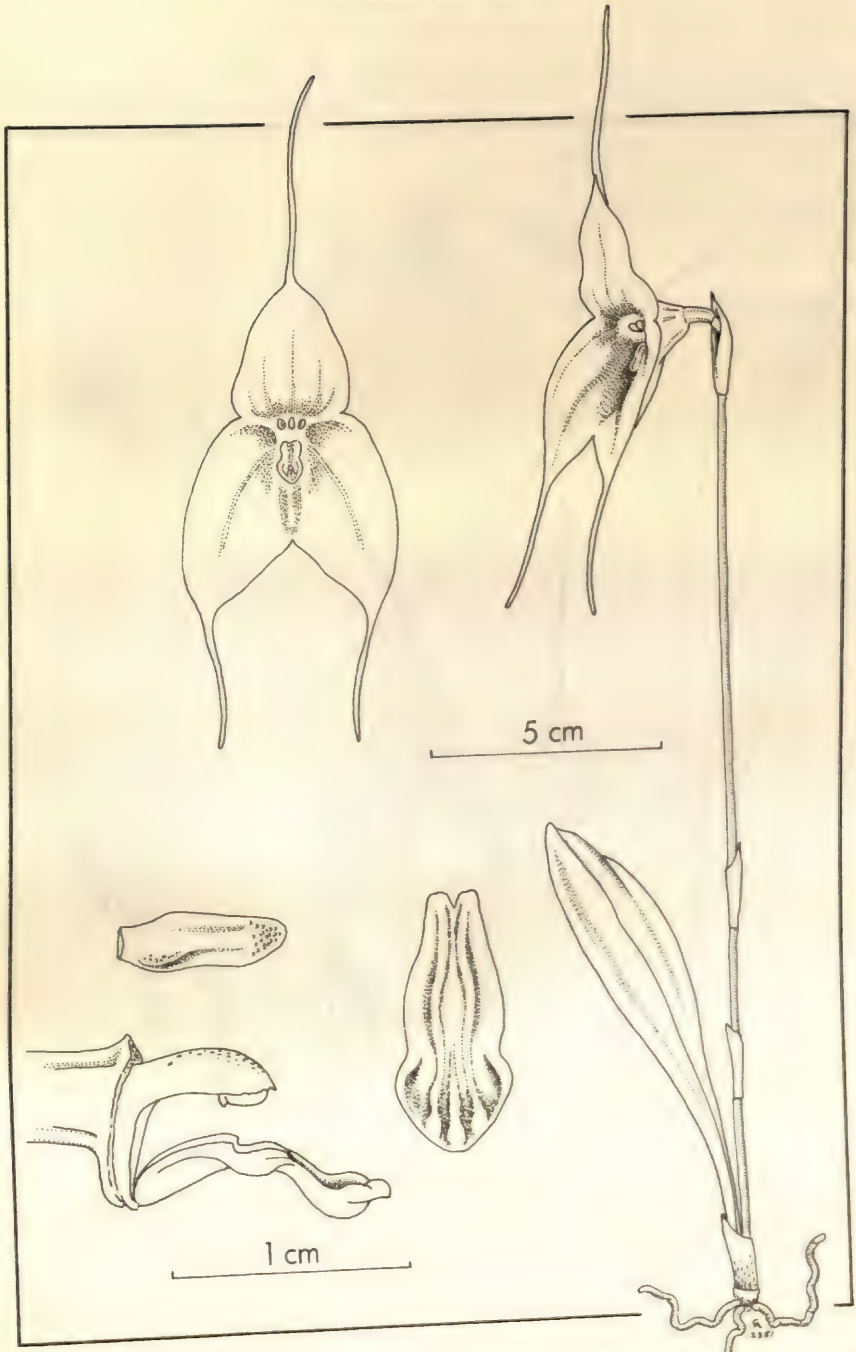


Plate 105. X*Dracuvallia* Memoria Maria Arcila (Sanin ex Richardson) Luer & Escobar

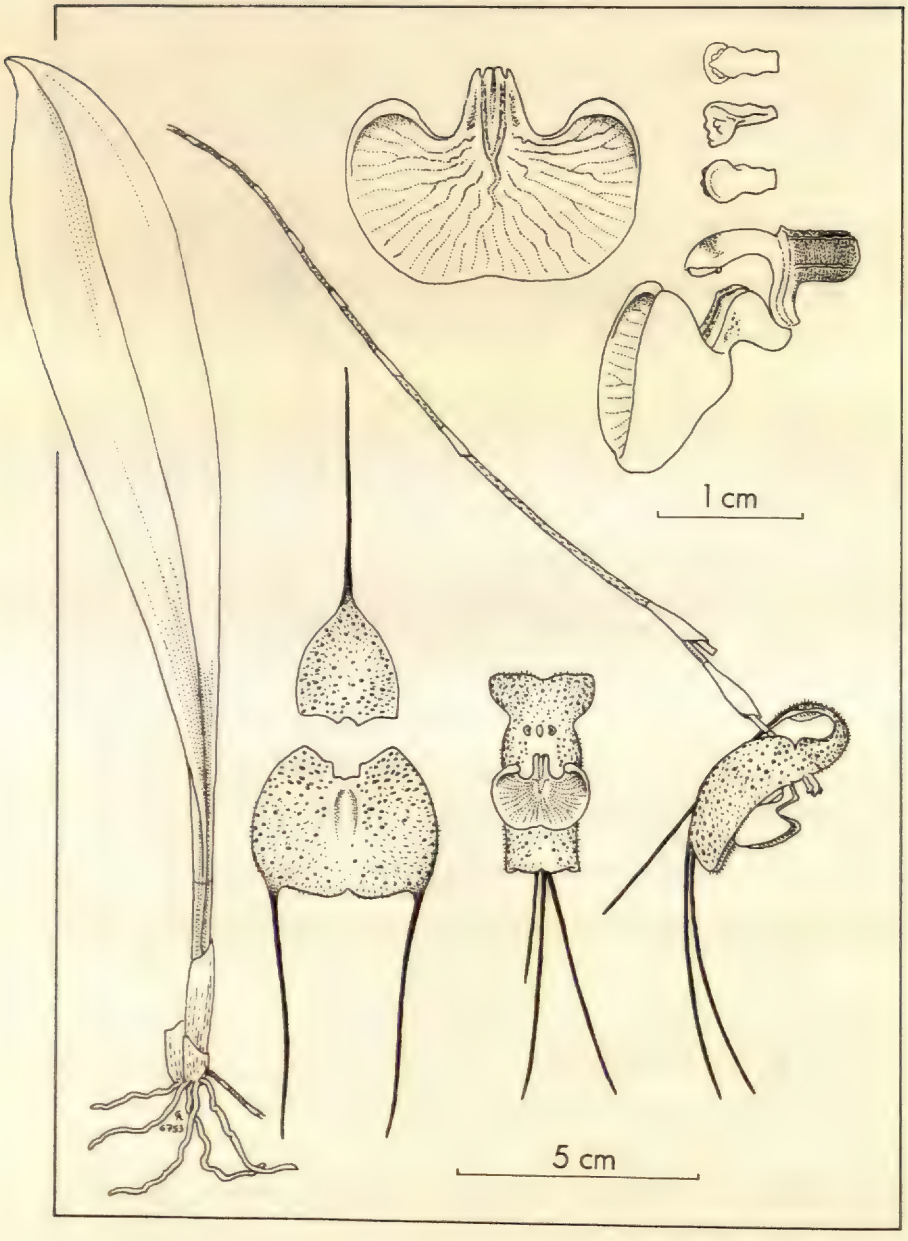


Plate 106. *Dracula* "X 1"

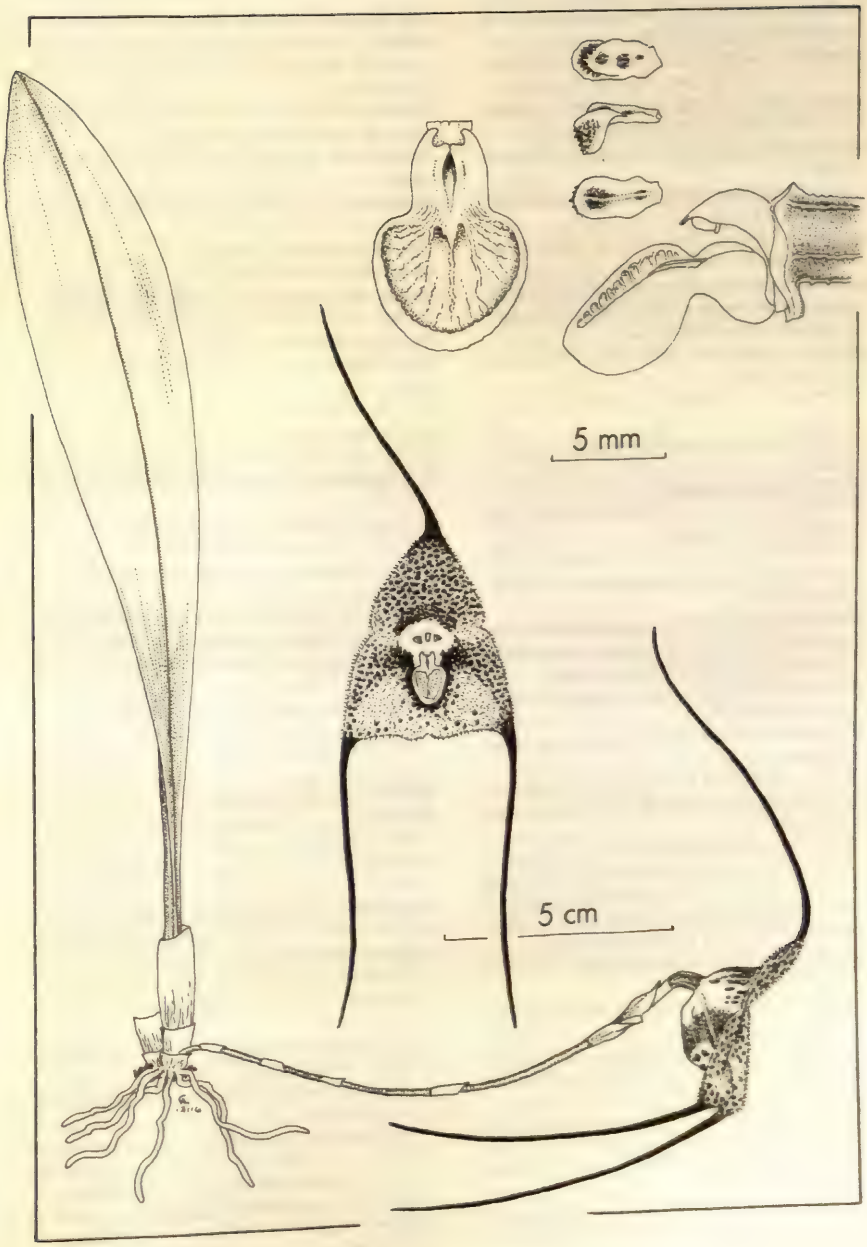


Plate 107. *Dracula* "X 3"

GLOSSARY OF ABBREVIATIONS, NAMES AND TERMS AS USED IN THESAURUS DRACULARUM

abscission layer, the ring or joint where the leaf separates from the ramicaul.
acuminate, the margins of the leaf or floral part concave toward the apex, tapering into a point.
acute, applied to the tip of the leaf or floral part, the sides meeting at an angle less than 90°.
alt., altitude, the number of meters above sea level.
Amer. Orchid Soc. Bull., Bulletin of the American Orchid Society.
AMES, the Orchid Herbarium of Oakes Ames, Cambridge, MA, USA.
annulus, an obscure ring surrounding the ramicaul at the emergence of the inflorescence, present in all species of *Dracula*.
anther, the apical part of the column that produces the pollinia.
anther cap, the operuculate covering of the pollinia.
apiculate, the apex with an apiculum, an abrupt point.
attenuate, long-acuminate.
B, Botanischer Garten und Botanisches Museum, Berlin-Dahlem, Germany.
basionym, a name in a different genus or other combination upon which a later name or combination is based.
bilaminate, bivalvate, the apex of the petal, consisting of an inner and an outer face, usually thickened and verrucose between them.
BM, the British Museum of Natural History, London, England.
BR, Jardin botanique national de Belgique, Meise, Belgium.
bract, a sheathlike structure on the peduncle. Technically, any sheathlike structure that is not a foliage leaf.
caespitose, with abbreviated rhizomes, the ramicauls approximate or produced in clumps or tufts.
callus, a thickening, a protuberance, or one or more keels on the disc of the lip.
capitate, enlarged or globose at the apex.
capsule, a fruit that dries and opens at maturity, shedding numerous seeds.
carina, a low lamella or keel, an elongated thickening or callus.
carinate, with a carina or carinae.
cartilaginous, thickened, firm and tough, like cartilage.
caudate, as applied to the floral parts, the apex terminating in a tail.
caudicle, in *Dracula*, the narrowed tip of the pollinium.
cellular-glandular, with prominent glandular or capitate cells, with a cobble-stone appearance.
ciliate, with hairs (cilia) on the margin.
clavate, thickened toward the apex, club-shaped.
cleft, channeled or sulcate, with a longitudinal groove.
cleistogamous, a flower self-fertilized without opening.
COL, Herbario Nacional, Bogotá, Colombia.
column, the central structure of the flower composed of the united style and the filaments of the anther.
column-foot, the extension of the base of the column to which the lip is attached.
conduplicate, of the leaves, with a single, midline fold.
congested, the inflorescence densely flowered, the flowers closely spaced.
connate, inseparable, or united.
coriaceous, of leathery texture.
costate, with longitudinal, raised ridges; ribbed.
crested, with irregular, longitudinal lamellae.
dentate, denticulate, toothed.
dept., department, a political division of a country.
disc, or **disk**, the upper surface of the central portion of the lip.
dorsal, on the upperside.
elliptical, shaped like an ellipse, widest at the middle.
entire, with smooth or unlobed margins.
epichile, the terminal segment of the lip.
epiphytic, growing upon another plant, but not parasitic.
filamentous, filiform, slender as a hair or thread.
floral bract, the bract subtending a pedicel.
G, Conservatoire et Jardin botaniques de la Ville Genève, Switzerland.
Gard. Chron., the Gardeners' Chronicle.
gen., genus, genera (pl.), the taxonomic category including species; the first part of a binomial name.
glabrous, smooth, without hairs.
herbarium, a collection of pressed, dried and mounted specimens of plants.
holotype, the specimen upon which the taxon is based.
hypochile, the basal portion of the lip.
inflorescence, the single flower, or a group of flowers (the raceme in *Dracula*).
isotype, any duplicate of the holotype, that is, any specimen that is part of the same collection as the holotype.
JAUM, the herbarium of "Joaquín Antonio Uribe," Medellín, Colombia.
K, the herbarium of the Royal Botanic Gardens at Kew, England.
Krzl., Kränzl., Fritz Kränzlin, German taxonomist.
lamella, a tall carina or keel, a plate-like thickening or callus (a callus may include lamellae).
lamellate, with a lamella or lamellae.
lamina, the blade of a leaf, sepal(s), or surfaces of the petals.
lax, loose, the inflorescence laxly or loosely flowered, the flowers distantly spaced.
Lehm., Friedrich Carl Lehmann, German engineer and Consul in Popayán, Colombia, who made extensive botanical collections.

lip, the modified third petal, in *Dracula* variously developed into an epichile and a hypochile; the labellum.

mentum, a concave, chinlike, portion of the synsepal below the column-foot.

m, meter, meters, the metric unit of length (100 centimeters) equal to 39.37 inches, 3.28 feet, or about 1.1 yards.

MO, the herbarium of the Missouri Botanical Garden, St. Louis, MO, USA

nerve, vein, the longitudinal line or lines (often branched) within the floral parts, representing vascular bundles.

NY, the herbarium of the New York Botanical Garden, Bronx, NY, USA.

obovate, egg-shaped in outline, widest between the middle and the apex.

obtuse, applied to the tip of the leaf or floral part, the sides meeting at an angle more than 90°.

ovary, the part of the flower that develops into the fruit.

ovate, egg-shaped in outline, widest between the base and the middle.

pandurate, violin-shaped, narrowest near the middle.

papillose, covered with papillae or nipplelike humps.

pedicel, the stem of an individual flower.

peduncle, the stem that bears a solitary flower or an inflorescence.

petals, the two floral parts borne within the sepals, small and cartilaginous in *Dracula*, usually with the apices bivalvate.

petiole, the stemlike basal portion of the leaf.

plicate, with several, longitudinal veins or folds; pleated.

pollinium, pollinia (pl.), compact pollen masses produced in the anther (two in *Dracula*).

prov., province, a political division of a country.

pubescent, more or less covered with hairs.

pyriform, pear-shaped.

raceme, an unbranched inflorescence.

rachis, the axis or stem of the inflorescence beyond the peduncle.

ramicaul, the "secondary stem," the aerial, leaf-bearing stem, applied only to pleurothallids.

Rchb. f., Heinrich Gustav Reichenbach, *filius*, German taxonomist.

repent, creeping, as applied to an elongated rhizome, as opposed to "caespitose."

resupinate, the flower bearing the lip lowermost, as in all species of *Dracula*, although not clearly so when the flower hangs straight down.

rhizome, in *Dracula*, the horizontal stem made up from the base of successive ramicauls.

ribbed, with longitudinal costae or ridges; costate.

rostellum, in *Dracula* represented as a minute flap between the anther and the stigma.

rugose, wrinkled.

saccate, sacklike, or deeply concave.

Schltr., Friedrich Richard Rudolf Schlechter, German taxonomist.

sect., section, a division of a genus.

secund, of a raceme, with the flowers pointing to one side.

SEL, the herbarium of the Marie Selby Botanical Gardens, Sarasota, FL, USA.

sepals, the three most prominent, outer floral parts.

sheaths, the thin, leaflike structures enveloping the lower portions of the ramicauls.

spathulate, spoon-shaped, an ovate or obovate blade with a narrow stalk.

species, species (pl.), a population or a group of interbreeding or potentially interbreeding populations that share genetic features, and are separated by barriers from other populations; the basic unit in biological classification; the second part of a binomial name.

stem, a general term applied to the stem of a flower (pedicel), the stem of the inflorescence (peduncle), the stemlike base of the leaf (petiole), the "secondary stem" (ramicaul), or the rhizome.

stigma, the receptive part of the column on the undersurface.

subacute, acute, the angle of the apex only slightly less than 90°.

subsect., subsection, a division of a section.

successive, of a raceme, the flowers maturing in succession, as opposed to simultaneously.

sulcate, channeled, with a longitudinal groove.

sympatric, species that occur in the same area.

synonym, an alternate (usually superseded) name.

synsepal, the blade formed by the union of the lateral sepals.

tail, a cauda, the elongated, narrow apex of a flower part.

taxon, taxa (pl.), a taxonomic group of any rank.

taxonomy, the science of identification and classification; systematics.

terete, cylindrical, round in cross-section.

trichome, a cellular hair.

truncate, as though cut off transversely at the apex.

type, a holotype, isotype, or lectotype.

US, the United States National Herbarium, Smithsonian Institution, Washington, DC, USA.

vein, nerve, the longitudinal line or lines (often branched) within the floral parts, representing vascular bundles.

ventral, on the underside.

verrucose, warty.

W, the herbarium of the Naturhistorisches Museum in Vienna (Wien), Austria.

winged, of the ovary, with tall, longitudinal keels.

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ACKNOWLEDGMENTS

Over many years, information about Draculas has acumulated from numerous persons, all of whom I thank. I hesitate to list them because I would certainly miss some. Foremost among those who gave particular advice, I thank Drs. Calaway H. Dodson, Robert L. Dressler and Dan H. Nicolson. I thank J & L Orchids of Easton, CT, for making available their remarkable collections.

For Colombia, I am grateful to have had the generous access to the fabulous collections of Jaime Posada and Ligia Moreno de Posada at Colomborquídeas, and Dr. Oscar Robledo and Martha Posada de Robledo at La Ceja. For Ecuador, I am grateful to have had access to the extensive collections of Father Angel Andreetta, Stig Dalström, Alexander C. Hirtz and Benigno Malo.

Finally, I thank Rodrigo Escobar, co-author of *Thesaurus Dracularum*, who spurred me on to this endeavor in 1977. Without his knowledge and generosity the magnitude of this work could not have been realized.

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